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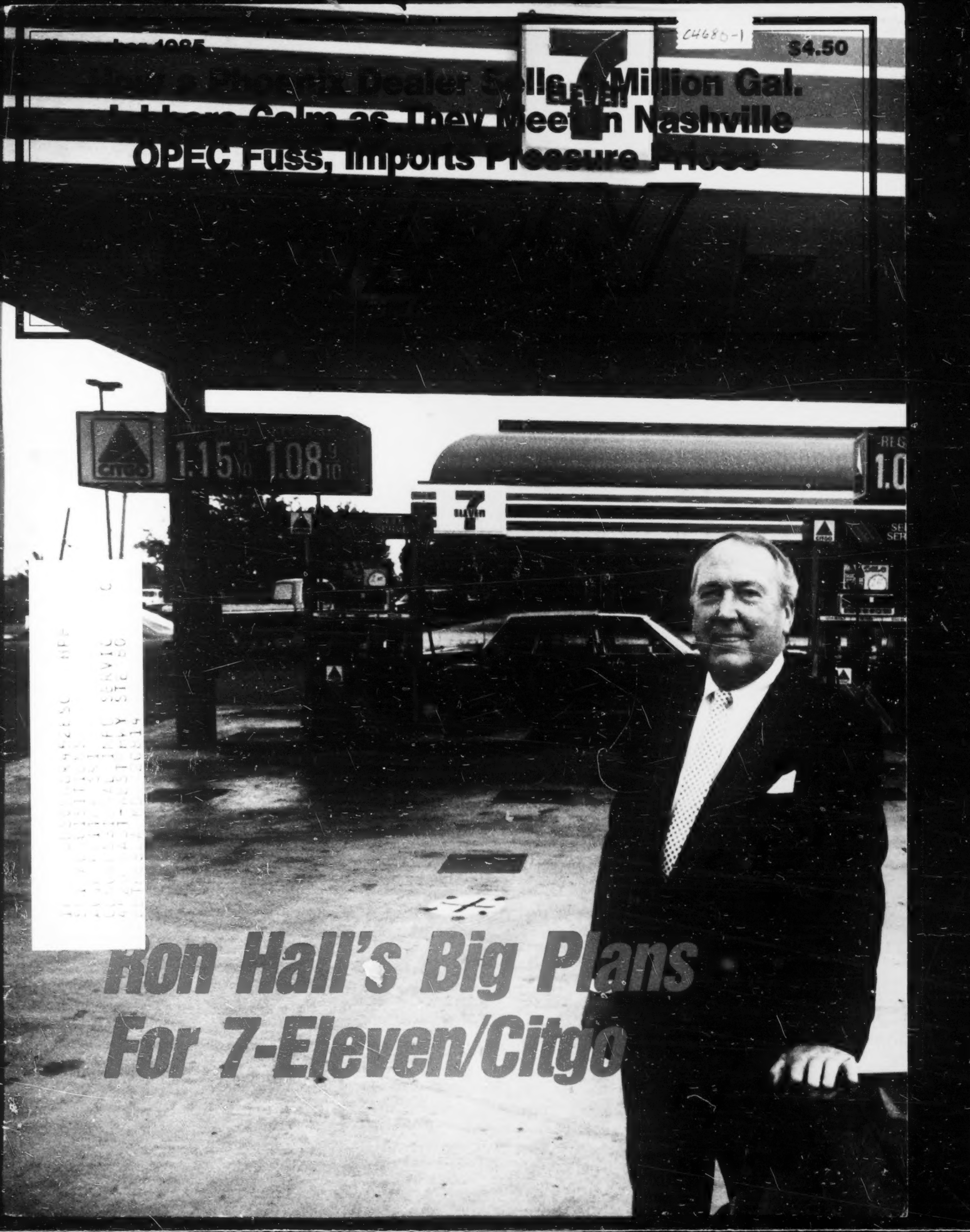
How a Phoenix Dealer Sells [illegible] Million Gal.

Jobbers Calm as They Meet in Nashville

OPEC Fuss, Imports Pressure Prices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SELF SERVE
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Ron Hall's Big Plans For 7-Eleven/Citgo

NATIONAL PETROLEUM NEWS

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When Southland acquired Citgo's refining and marketing properties two years ago, some wondered whether the "marriage" would take. However, after a rocky beginning, Citgo chairman Ron Hall is mapping out strategies to take advantage of the combined strengths of the two companies. **Page 54**

Applying a formula he learned from a friend in the volume merchandising field, Arco dealer John Spencer has catapulted his gasoline sales from 100,000 gal./month to within a whisker of 1-million gal./month, causing a considerable ruckus in the always turbulent Phoenix market. **Page 61**

As jobbers gather in Nashville, Tenn. for the fall convention and trade show of the Petroleum Marketers Assn. of America, many are looking for an answer to one question: Is there a place for me in this fast-changing marketplace? **Page 78**

• TRENDS

Fuel Oil Brinkmanship: Are Too Many Banking Too Much on Plain Good Luck?

The brinkmanship that has been going on with fuel oil inventories this fall has some observers wondering whether suppliers and marketers aren't pushing their luck too hard by cutting corners too thin this time.

There is no question that impressive arguments can be made for cost control and that high inventory levels aren't the way to go in July, August and September if that's the golden objective.

Much can be said too about conservation, declining demand, the spare refining capacity the industry has readily available to meet surge curves, and the fact that crude *and* product are available just about everywhere. So what if the Sept. 1 inventory levels are barely over the minimum levels? Nothing to worry about, according to most of the industry's spokesmen—and a surprising number of the distributors and their spokesmen as well.

But all those arguments and economic validators will be so much more dust in November and December if the industry is caught short by cold weather or some other unlucky break. Consumers aren't the least big impressed when they are cold and/or uncomfortable. Nor are they overjoyed when prices shoot up 5¢, 10¢ and perhaps 15¢ gal.—not because there is a basic shortage of product but because supplier tanks are temporarily depleted.

Already there are danger signals flying. In Washington, the Citizens/Labor Energy Coalition has already published a 15-page study in which it charged that there can be no reason for a fuel oil crisis this winter "except for a decision on the part of major oil companies to reduce supplies in order to drive prices higher than last year's levels."

The *Boston* (Mass.) *Globe*, in a mid-September editorial, commented; "Regretably, reserves of heating oil have not been made part of a public policy to avoid the less serious disruptions that in the past have forced prices up at the very worst of the season. Perhaps the next minor crisis, which is a likely even this winter, will at last inspire such a policy."

In other words, if the industry can't do it itself, the government will—or, at least, will be pressured to do so.

In recent years, the industry's stockpile of fuel oil at primary and secondary levels has been declining almost spectacularly. Two years ago, the industry had a primary supply of 154-million bbl. on Sept. 1; last year, it had 143-million bbl. This fall, it had only 116-million bbl. on Sept. 1—and didn't improve the situation a whit during the entire month. The total was actually 114.6-million bbl. on Sept. 20. That's less than 10-million bbl. above the so-called minimum inventory level, at which time run outs, shortages and operating problems could happen anywhere.

This is the sort of brinkmanship that has many industry people concerned. But some complacently say that the excesses of crude can hurriedly be put through the spare refinery capacity and presto, there would be no shortages.

There are two or three things to be remembered at this time. It takes basically two weeks from the time the extra supplies of crude are poured into the refineries until they reach consumer tanks on the other end of the distribution system. Not long in one sense, but a long time if the weather is very, very cold and consumers are screaming. There also are bottlenecks in the supply system to cope with. It must be remembered, too, that about 3-million b/d of refinery capacity has been shut down. What's left is very good but is it a positioning as strong as before to meet sudden demand imports? Also, have all of them been converted over to the winter distillate run? Some industry sources raise questions about that.

Industry and government forecasts have said repeatedly that with all of the excess supplies available, fuel oil prices would probably be very flat this winter and probably wind up perhaps 1¢ under last year's. This is deep-rooted enough now in consumer minds that if price spikes come—as they most assuredly will in the event demand shoots up unexpectedly—just about everything the industry has spent on its good-will image progress will go down the drain.

It would appear that many suppliers and jobbers banked on the weather as the heating season got underway. The opening line of 115-million bbl. of primary inventories, in the opinion of some industry people, was close to untenable. Perhaps a way to go would be to accept the minimum operating inventory level as a matter of fact, then position a minimum Sept. 2 inventory level above that. It would give the industry and the consumers alike a more comfortable feeling as the heating season got underway.

—J. Richard Shaner.

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

AUGUST	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.222	$1.143	$1.229	$1.359
Regions:				
Northeast	1.237	1.154	1.228	1.355
North Central	1.240	1.172	1.260	1.393
South	1.205	1.122	1.208	1.348
West	1.210	1.130	1.217	1.360

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	9/27/85	9/28/84
Gasoline (total)	224,835	229,074
Gasoline (Unleaded)*	111,084	105,304
Jet Kerosine	36,553	38,546
Distillates	117,063	142,212
Residual	42,998	47,308

**Included in gasoline total.*
Source: American Petroleum Institute.

NPN

NATIONAL PETROLEUM NEWS NOVEMBER 1985

Imports Signal New Era of Turbulence

Oil marketing appears to be headed toward a period of jitters and turbulence that possibly could be its worst yet. One marketer says it's like being paddleless in a small boat drifting toward the rapids, and not being able to do much more than cross fingers.

Events and actions from all over are part of the growing storm—in the Middle East, which has more crude oil than it knows what to do with; in East Coast ports, where finished products are coming ashore via surprisingly different hands; in the street, where cheap gasoline is firing up competition; and in Washington, where legislative battles over fees and tariffs are intensifying.

Separately, each probably could be taken in stride. Collectively, however, and converging as they appear to be, they are formidable.

Crude Flood

Precipitating the latest upheaval is Saudi Arabia's decision to stop jawboning and make good on its oft-repeated threat to come back into the international markets with a flood of crude that nobody really needs or wants.

The Saudis are being taken seriously this time.

Oil Minister Ahmed Yamani told an Oxford, England, meeting in early September that production was to be increased 1-million b/d as of Oct. 1. Not long afterwards, industry and government circles heard that he had signed agreements with Exxon, Mobil and Texaco to take 850,000 b/d of the new production, and that negotiations were underway with one or two other companies to take care of the balance.

It was understood that Yamani also negotiated a new "netback" price for the crude oil that would be equivalent to about $2 to $2.50 bbl. discount. The "netback" is related to the price of the products that are refined from the barrel rather than the crude itself.

The price discount alone was unusual for Yamani because he has been the steadfast advocate in the OPEC cartel of cutting production and setting quotas rather than reducing prices as demand diminished.

Some OPEC members discounted prices and exceeded production quotas, however, leading Yamani to threaten repeatedly to flood the marketplace with crude to teach them self-discipline.

In recent years, Saudi Arabia's crude

East Coast Gasoline Importers

(First Six Months of 1985)

	b/d Avg.			(Add 000 bbl.)
Top 15 Importers	Leaded Mogas	Unleaded Mogas	Total Mogas	Total Volume
Northville Industries	24,386	21,375	45,761	8,351
Will Petroleum	21,446	11,689	33,135	6,047(a)
Amerada Hess	3,911	28,094	32,005	5,841
Phibro Distributors	8,579	14,087	22,666	4,136
Texaco	4,265	10,586	14,851	2,710
UPG Inc.	6,160	7,825	13,985	2,552
Oxbow Resources	5,441	5,671	11,112	2,028
Shell	1,261	9,670	10,931	1,995
Citgo Petroleum	1,177	8,954	10,131	1,849
Belcher Oil	1,724	7,133	8,857	1,616
Sun	—	8,077	8,077	1,474
Bulk Oil (USA)	3,492	3,883	7,375	1,346(b)
Vitol Trading	3,409	3,431	6,840	1,248
Koch Industries	5,261	1,515	6,776	1,236
Ultramar Petroleum	1,154	4,948	6,138	1,120

(a)Also brought in 40,158 b/d of blending stocks in first half; total vol.: 7,329,000 bbl.
(b)Also brought in 5,317 b/d of blending stocks in first half; total vol.: 970,352 bbl.

Other Importers (in alphabetical order)				
Aectra USA	1,093	3,014	4,107	750(c)
Agway Petroleum	1	1	2	—
Anthony Petroleum	—	1,789	1,789	326
Anschutz Petroleum	3,916	—	3,916	715
Apex Oil	2,639	727	3,366	614
Astroline Pacific	—	1,059	1,059	193
Beaumont Oil	—	1,775	1,775	324
Buddy's Truck Stop	19	34	53	—
Cecil William	—	495	495	—
Coastal States Gas	1,371	1,168	2,539	463
D/C Transportation	58	46	104	—
Delphi Petroleum	1,202	—	1,202	219
Doug-Long Inc.	59	—	59	—
East. Seaboard Petro.	—	787	787	143
Econo Fuels	8	6	14	—
Elf Trading	—	1,514	1,514	276
Global Petroleum	—	3,951	3,951	721
Goetz Oil	114	60	174	—
Horizon Product Tr.	—	1,243	1,243	227
Kaiser Aluminum	—	1,305	1,305	238
Langham-Hill	—	4,317	4,317	788
Mabanaft, Inc.	1,600	—	1,600	292
Mobil	639	4,783	5,422	990
Noco Trading	—	994	994	181
Northeast Petroleum	—	3,542	3,542	646
Petro. Sales-Service	322	813	1,135	207
Power Test Petro.	—	1,255	1,255	229
Sipco Oil	160	—	160	—
Steuart Petroleum	—	716	716	131
Stinnes Interoil	—	2,882	2,882	526
Strikev Industries	—	48	48	—
Vanol USA	2,831	1,124	3,955	722
R. L. Vallee	13	16	29	—
Welch Energy	1	—	1	—
1211 Colvin Blvd. Inc.	—	136	136	—
Total Imports	**107,712**	**186,898**	**294,610**	**53,766**

(c)Also brought in 1,241 b/d of blending stocks; total vol.: 226,483 bbl.
Source: DOE, API and I.P. Sharp.

production has dwindled from 8-million b/d to the current level of about 2.5-million b/d.

Yamani also spoke tougher this time: "If non-OPEC producers do not cooperate with OPEC in stabilizing the market and we in the organization do not discipline ourselves, then I expect there will be a price war."

He suggested that a price war might see the floor drop as low as $18 bbl. by next spring. That would be $10 bbl. below the Saudis' official benchmark price of $28 bbl. and about $8 below the going market price.

Nightmare Alley

What $18 crude could do to American product prices and margins in 1986 is the kind of stuff that nightmares are made of.

In addition, some financial analysts say some major oil companies that acquired others or fought off takeover attempts in the past two or three years could be in trouble if crude oil prices dip below $20 bbl. Most of their deals were figured on the basis of prices holding up higher than that level.

There is an interesting aspect to the flood of product coming to the U.S. Where once the internationals dominated what small amounts of product that did come in, things changed rapidly in recent years.

Gasoline, for example. Only once or twice, in the decade preceding 1983, did gasoline imports exceed 200,000 b/d average. In 1983, however, they went up to 243,000 b/d; in 1984 to 299,000 b/d; and for the first six months of 1985, they exceeded 400,000 b/d on several occasions and averaged out to about 393,000 b/d for the period.

Government data show that six of the top 15 importers of gasoline into PAD I (East Coast) ports in the first half of 1985 were brokers, traders and blenders (See tables on p 41). There were eight in 1984 and a half dozen in 1983. This seems to indicate a changing role for brokers, traders and blenders.

One blender, about whom little is known outside the closed-mouth circles of traders and blenders, is Will Petroleum Corp., of New York. In the first half of 1985 Will brought in an average of 33,125 b/d of gasoline and an average of 40,158 b/d of blending components.

Check The Data

The government import statistics can be misleading, however. For example, Amerada Hess is listed as one of the biggest gasoline importers in PAD I. Yet Hess is merely bringing in the product that is refined at its own facilities in the Virgin Islands, not gasoline from other parts of the world.

Shell brought in some foreign gasoline in the first half of 1985 but Texaco, Sun and Koch are the only consistent branded gasoline importers over the three-year span for which data are available. The biggest importer of overseas gasoline is Northville Industries, an independent which has its headquarters on Long Island and is a major supplier to independent marketers in the Middle Atlantic and lower New England areas.

Apex Oil, of St. Louis, had been a fairly active importer of gasoline in PAD I in 1983 and 1984 but dropped out of the top 15 in the first half of 1985. Ultramar Petroleum showed up as a growing importer in 1984 and 1985 but its gasoline comes from Canada rather than overseas.

The product data compiled by the government is difficult to classify and catalogue but the sources of the supply are many and varied. It may come as a surprise to some East Coast marketers that some of the gasoline they are selling comes from Romania and Soviet Russia.

The data and information supplied by Petroleum Industry Research Foundation confirm that there has been a distinct shift in the source of gasoline and other light

1984—Full Year

	b/d avg.			(Add 000 bbl.)
Top 15 Importers	Leaded MoGas	Unleaded MoGas	Total MoGas	Total Volume
Amerada Hess	9,532	39,286	48,818	17,819
Northville Industries	29,668	12,248	41,916	15,299
Apex Oil	25,086	10,625	35,711	13,035
Will Petroleum	12,274	6,671	18,945	6,915(a)
Texaco	1,218	8,766	9,984	3,644
Sun	3,048	6,789	9,837	3,591
Phibro Distributors	4,558	4,410	8,968	3,273
Koch Industries	3,902	2,712	6,614	2,414
Bulk Oil	—	5,364	5,364	1,958(b)
Ultramar Petroleum	187	4,394	4,581	1,672
Stinnes Interoil	628	3,912	4,540	1,657
Langham-Hill	—	4,380	4,380	1,599
Global Petroleum	205	4,170	4,375	1,597
Anschutz Petroleum	3,243	—	3,243	1,184
Falco, Inc.	1,734	1,144	2,878	1,050

(a) Also brought in 22,438 b/d of blending stocks; total vol.: 8,189,870 bbl.
(b) Also brought in 3,823 b/d of blending stocks; total vol.: 1,395,395 bbl.

Other Importers (in alphabetical order):	Leaded MoGas	Unleaded MoGas	Total MoGas	Total Volume
Aectra USA	—	1,790	1,790	653
Astroline Corp.	—	541	—	197
Augsbury Corp.	7	7	14	—
Belcher Oil	695	1,775	2,470	902
Broskin Trucking	2	—	2	—
Buddy's Truck Stop	5	10	15	—
Citgo Petroleum	408	1,386	1,794	655
Coastal States Gas	—	1,183	1,183	432
D/C Transportation	17	8	25	—
East. Seaboard Petro	—	28	28	—
Gill/Duffus Chem.	726	—	726	265
Goetz Oil	—	4	4	—
Gulf Oil	648	—	648	237
Irving Oil	—	83	83	—
Kaiser Aluminum	1,827	—	1,827	667
Mabanaft Inc.	487	—	—	178
Massena Petroleum	1	1	2	—
Mobil	—	612	612	223
Noco Trading	—	978	—	357
Northeast Petroleum	—	1,213	1,213	443
Purdy Coal/Oil	2	5	7	—
Shell	355	230	585	214
Sipco Oil	6	—	—	—
Steuart Petroleum	—	1,733	1,733	633
Eli Tarbell	3	—	3	—
Unipetrol	130	886	1,016	371(c)
R.L. Vallee	—	3	3	—
Cecil William	—	1,287	1,287	470
1211 Colvin Blvd. Inc.	83	338	421	154
Total Imports	**101,506**	**130,930**	**232,436**	**84,839**

(c) Also brought in 12,311 b/d of blending stocks; total vol.: 4,493,515 bbl.
Source: DOE, API and I.P. Sharp.

product imports. Throughout most of the '70s and as recently as 1980, as much as 89% of the light products came from "short haul" places such as the Caribbean and Canada. By 1984, however, this had declined to 63%. Newcomers of importance as suppliers of gasoline and other products via East Coast ports include Brazil, Romania, United Arab Emirate and Western Europe. These countries now account for more than 80,000 b/d of gasoline and almost 30,000 b/d of blending stocks.

Of significance too is the fact that the OPEC countries are coming on stream with as much as 2.5-million b/d of new capacity by 1987 which may see, under one set of circumstances, as much as 850,000 b/d of gasoline, distillates and other light products looking for homes in U.S. marketplaces over the next two years [*NPN*—Oct. '85, p44]. This flow cannot help but exacerbate an already difficult situation for U.S. marketers if the Saudi crude of 1-million b/d is readily available and other OPEC begin churning out more crude and product to hang on to their declining pieces of the market pie.

The Shift in Product Imports—1978-1984

	Per Cent of Total					
	Finished Gasoline		Total (a) Light Oils & Fin. Prods.		Total (a) Volume (000 b/d)	
	1978	1984	1978	1984	1978	1984
International Majors	21%	8%	25%	8%	111	82
Domestic Refiners	69%	28%	60%	41%	261	399
Traders, Marketers & Blenders	10%	64%	15%	51%	64	490

(a) Totals for light oils and finished products and liquid volumes include distillates, jet fuel, kerosine, naphtha, unfinished oils and feedstocks.
Source: Petroleum Industry Research Foundation, "Outlook for Light Products Imports into the U.S.," June 1985, API/DOE base.

1983—Full Year

	b/d Avg.			(Add 000 bbl.)
Top 15 Importers	Leaded Mogas	Unleaded Mogas	Total Mogas	Total Volume
Amerada Hess	11,257	43,318	54,575	19,920
Northville Industries	29,065	3,111	32,176	11,744
Will Petroleum	4,291	17,273	21,556	7,871(a)
Apex Oil	8,624	9,092	17,716	6,466
Sun	4,400	12,336	16,736	6,109(b)
Phibro Distributors	3,786	2,525	6,311	2,304
Anschutz Petroleum	4,950	—	4,950	1,807
Stinnes Interoil	3,902	—	3,902	1,424
Koch Industries	1,769	2,127	3,896	1,422
Bulk Oil (USA)	—	3,810	3,810	1,391
Northeast Petroleum	2,598	823	3,421	1,249
Texaco	—	2,163	2,163	789(c)
Falco, Inc.	2,014	—	2,014	735
TampimEx, Inc.	747	894	1,641	599
TampimAx, Intl.	1,383	—	1,383	505

(a)Also brought in 8,117 b/d of blending stocks; total vol.: 2,962,705 bbl.
(b)Also brought in 721 b/d of blending stocks; total vol.: 263,165 bbl.
(c)Also brought in 326 b/d of blending stocks; total vol.: 118,990 bbl.

Other Importers (in alphabetical order):				
Aectra USA	—	478	478	174
Astroline	—	209	209	—
Augsbury Corp.	150	—	150	—
Broskin Trucking	169	193	372	136
Buddy's Truck Stop	13	17	40	—
Centurian Motors	2	—	2	—
Champlin Oil	14	—	14	—
Coastal States	504	66	570	208
Colonial Oil	373	181	554	202
Commonwealth Gas	15	—	15	—
Coral Petroleum	—	1,372	1,372	501
Doug-Long Inc.	77	48	125	—
Gas N Go Enter.	153	66	219	—
Global Petroleum	201	161	363	132
Goetz Oil	171	196	367	134
Massena Petroleum	6	17	23	—
Noco Trading	35	784	869	317
Power Test Petro.	60	—	—	—
Scan Oil, Inc.	205	—	205	—
Shell	712	—	712	260
Sipco Oil	103	206	309	113
S. B. Collins	88	8	96	—
A. Tarricone	70	—	70	—
Eli Tarbell	241	136	377	138
Transpetro USA	548	16	564	206
T.W.-Oil	614	—	614	224
Unipetrol	612	157	769	281
R. L. Vallee	139	206	345	126
Cecil William	—	681	681	249
1211 Colvin Blvd. Inc.	497	184	581	212
Total imports	**88,189**	**102,672**	**190,861**	**69,664**

Source: DOE, API and I.P. Sharp

Tariff Battle

While this is going on, there is the growing fight in Washington over imports and tariffs on the increasing flow of products. The independent marketers, led notably by Petroleum Marketers Assn. of America and the Society of Independent Gasoline Marketers of America, want no part of fees or tariffs, insisting they would inhibit the flow of free trade and possibly would remove a competitive opportunity with domestic suppliers. The Reagan Administration also is opposed to fees and tariffs on the grounds that it constitutes another form of tax increases.

At a House subcommittee hearing in September, PMAA president David Robinson testified that "refined product imports provide an important source of price competition for domestic refiners, thus keeping the price of products lower for the American consumer." Similar support was voiced by Leonard Steuart of Washington, D.C., in behalf of the Coalition of Gasoline Marketers, and Carl Bolch, a Georgia independent, in behalf of SIGMA. Supporting the pro-fee/tariff/import restrictions position was Roger Hemminghouse, president of Diamond Shamrock, who appeared for the Independent Refiners Coalition.

The IRC is comprised of the American Independent Refiners Assn. and 15 nonmajor refining companies [*NPN*—April '85, p29]. Formally organized earlier this year, the IRC reportedly has built a $2-million warchest for lobbying efforts aimed at legislation to enact quotas limiting the amount of imported refined products. **NPN**

Crude Reserves Up, But Gas Reserves Decline

Although crude oil reserves rose for the first time in 14 years, there's not much else to cheer about in the federal government's annual appraisal of the oil and gas reserves that this country has available to meet current and future energy needs.

Crude oil reserves increased 711-million bbl. in 1984, or 2.6% over the preceding year's total. But since the nation is producing a little more than 3-billion bbl. from its own wells, that's equivalent to less than three months of extras on the shelf.

At the same time, the proved reserves of natural gas liquids and natural gas declined in 1984—the second time in recent years for natural gas liquids and the sixth time in the past eight years for natural gas. Gas liquids reserves were estimated at 7.6-million bbl., and those of natural gas at 197.5-trillion cubic feet.

Theoretically, the crude oil reserves would last for 9.4 years if not another drop was found—which is highly unlikely—and natural gas, for 11.5 years on the same basis.

The last big year for net additions to the proved reserves of both crude oil and natural gas took place in 1970 when the Alaska's Prudhoe Bay discoveries were added to the totals for the first time. Crude oil's reserves went up 9.6-billion bbl. and gas's, 26-trillion cubic feet.

A point to remember in evaluating the 1984 increase in crude oil reserves is that the bulk came from net additions to established fields rather than new discoveries. In other words, the productive potential of various fields was re-evaluated in the light of enhanced recovery technology and improved operations.

The net revisions amounted to 2.4-billion bbl. and the "new" discoveries (including extensions and new reservoirs in old fields), 1.1-billion bbl. The net increase for the year was 711-million bbl., raising the 1984 total to 28.4-billion bbl. from 27.7-billion bbl.

An interesting aspect of the 1984 report was that Alaska's share of the crude oil reserves (7,563-million bbl.) exceeded those of Texas (7,557-million bbl.) for the first time.

The reserve estimates are made by the Energy Information Administration of the Department of Energy. The American Petroleum Institute and the American Gas Assn. traditionally estimated the reserves but once the government had established its bearings, they turned the project over to it in 1980.

	Liquid Hydrocarbons (In million of bbls.)				Natural Gas (In billions of cf.)	
Year*	Crude Oil Reserves	Natural Gas Liquids Reserves	Total Liquid Hydrocarbons Reserves	Indicated Years of Supply	Natural Gas Reserves	Indicated Years of Supply
1984	28,446	7,643	36,089	9.5	197,463	11.5
1983	27,735	7,901	35,636	9.5	200,247	12.7
1982	27,858	7,221	35,079	9.6	201,512	11.5
1981	29,426	7,068	36,514	9.9	201,730	10.8
1980	29,805	6,728	36,533	9.9	199,021	10.8
(Peak year)						
1970	39,001	7,702	46,703	11.7	290,746	13.3

Source: Energy Information Administration, American Petroleum Institute

Import Fees May Surface Again in 1986

Although President Reagan rejected an oil import fee earlier this year, a bipartisan group of U.S. senators may be laying the groundwork for another attempt for one by the end of the year.

Led by Sen. Bennett Johnston (D-La.), 43 lawmakers in August sent a letter to Commerce Department Secretary Malcolm Baldridge asking for an investigation into whether increased gasoline imports pose a threat to national security. The Commerce Department had not acted on the request by late September.

In the letter, the senators said domestic refining capacity has dropped from 16.9-million b/d to 15.6-million b/d. At the same time, U.S. demand has risen to 15.9-million b/d., the lawmakers claimed.

The investigation is backed by the Independent Refiners Coalition, which has spent much of the last year lobbying for increased oil import tariffs. IRC members include Crown Central Petroleum Corp., Ashland Oil Co., The Coastal Corp., Diamond Shamrock Corp. and Tosco Corp.

If Commerce launched a probe and found that the nation's energy security is threatened by imports, an oil import fee could be one of the recommendations made to ensure an adequate domestic refining capacity. Such a fee is adamantly opposed by the Petroleum Marketers Assn. of America and the Society of Independent Gasoline Marketers of America.

New PMPA Amendments Are Introduced, But Jobbers Don't Like It

Legislation which would amend the Petroleum Marketing Practices Act (PMPA) to benefit only dealers has been introduced by Rep. James Florio (D-N.J.).

The bill, offered at the request of the New Jersey Gasoline Retailers Association, is based on pending PMPA legislation put forth in May by Reps. Mike Synar (D-Okla.) and Tom Tauke (R-Iowa). It would require major oil companies to be "fair and reasonable" in marketing practices and third party leases with dealers.

Contrary to the Synar-Tauke measure, however, the Florio bill contains no language which would benefit marketers. Al Cobb, director of legislative affairs for the Petroleum Marketers Assn. of America, said PMAA had no part in drafting the Florio proposal and supports only the Synar-Tauke bill.

Introduction of the dealer-only bill might be seen as a further indication of the rift which has developed between a handful of state dealer associations and the Washington, D.C.-based Service Station Dealers of America [*NPN*—Sept. '85, p16]. State delegations from New Jersey, Georgia, Michigan and Pennsylvania/Delaware bolted from the SSDA this summer after complaining about the "misplaced priorities" of the national association. Along with the Texas Service Station Assn., they then formed the National Coalition of Petroleum Retailers and hired Washington lobbyist Jerry Glover.

Jerry Ferrara, executive director of the New Jersey delegation, said SSDA was not consulted about the Florio bill. The state groups plan to rejoin SSDA "when SSDA orients their prime focus to legislation and keeping dealers informed."

Ferrara said the Florio measure "takes nothing away" from the Synar-Tauke bill. In fact, he said, the state delegations which pulled out of SSDA still support Synar-Tauke. The dealer-only amendments, however, may stand a better chance of passing on their own, Ferrara claimed.

For its part, SSDA is playing down the importance of the new legislation. SSDA executive director Vic Rasheed said the bill is "sort of redundant" because its language is basically identical to the dealer language in Synar-Tauke backed by SSDA.

Hearings are expected on the Synar-Tauke bill before the end of the year in the fossil fuels subcommittee of the House Energy and Commerce Committee. It is not clear whether the Florio dealer-only proposal will be heard separately.

Wholesale Employment Continues to Sag, IPAA Study Finds

Employment in the wholesale segment of the oil marketing industry sagged to 207,872 by the end of 1984, the lowest level in recent years, according to "The Oil & Gas Producing Industry In Your State," which is published annually by Independent Petroleum Assn. of America.

This was the fourth straight year of decline in wholesale employment.

Retail employment, primarily service stations, also declined somewhat in 1984, according to IPAA.

It is next to impossible, however, to relate these figures to marketplace retrenchment and changes. It might be assumed, for example, that with the service station population shrinking year after year that retail employment would also be going down constantly, but such is not the case. Over the past six years, employment has been as low as 558,462 and as high as 606,196 and not in a consistent pattern either.

IPAA says the totals are estimates based on the best obtainable data from various state and federal agencies.

These are the totals for recent years:

Year	Wholesale	Retail	Total Industry(*)
1984	207,872	576,468	1,743,529
1983	223,974	586,433	1,976,488
1982	225,394	558,462	1,865,305
1981	226,063	561,172	1,835,303
1980	217,248	606,196	1,762,825
1979	231,616	584,227	1,642,843

(*) Total industry includes production, refining and transportation except gas pipelines but including gas distribution employees.

On a state-by-state basis, here are the wholesale, retail and industry employment totals for 1984, as compiled by IPAA

State	Wholesale	Retail	Total Industry
Alabama	4,869	7,317	17,591
Alaska	531	1,270	11,514
Arizona	1,434	7,582	10,372
Arkansas	2,710	4,624	14,537
California	16,052	61,577	159,289
Colorado	2,885	8,289	39,556
Connecticut	2,575	9,243	13,357
Delaware	282	1,360	2,966
Dist. of Columbia	232	1,066	2,139
Florida	7,006	29,044	39,645
Georgia	6,013	16,520	26,049
Hawaii	549	3,580	4,878
Idaho	1,545	2,487	4,603
Illinois	9,908	26,293	60,618
Indiana	3,643	14,520	25,731
Iowa	3,225	10,940	15,860
Kansas	2,750	7,650	35,600
Kentucky	2,819	9,511	22,752
Louisiana	5,700	8,400	113,100
Maine	1,214	2,544	3,773
Maryland	3,184	13,133	17,805
Massachusetts	3,691	14,173	23,104
Michigan	5,387	21,370	41,035
Minnesota	2,558	15,437	20,677
Mississippi	3,622	5,205	21,177
Missouri	6,867	14,937	27,639
Montana	1,509	2,581	9,458
Nebraska	1,849	6,131	12,553
Nevada	393	3,460	4,915
New Hampshire	518	2,701	3,478
New Jersey	4,030	20,017	35,350
New Mexico	1,762	4,198	24,267
New York	10,033	29,246	59,457
North Carolina	5,203	9,271	17,247
North Dakota	2,405	2,174	11,912
Ohio	5,876	27,915	60,129
Oklahoma	6,091	6,626	98,513
Oregon	2,225	7,736	11,593
Pennsylvania	10,700	26,500	63,100
Rhode Island	534	2,377	3,795
South Carolina	3,498	7,105	11,196
South Dakota	1,441	2,634	4,413
Tennessee	4,588	11,922	19,328
Texas	24,910	35,660	393,703
Utah	1,646	4,557	14,872
Vermont	308	1,654	2,085
Virginia	7,620	14,615	25,190
Washington	2,653	9,533	19,149
West Virginia	2,190	3,737	18,195
Wisconsin	3,362	14,107	20,687
Wyoming	1,277	2,939	23,577
Total U.S.	**207,872**	**576,468**	**1,743,529**

(For data on earlier years, see NPN Factbooks.)

Court Backs Amoco in Dealer Termination Suit

The Petroleum Marketing Practices Act will not aid an Amoco dealer who sought to block the supplier from terminating its agreement for business reasons, a federal court in Philadelphia has ruled.

A test of the law was sparked by Stephen and Thomas Pietras, owners of a Glenolden, Pa., property that had become unprofitable. Sales had declined from approximately 312,000 gal. in 1972 to 150,000 gal. in 1983, and, as a result, Amoco notified the Pietrases that it would not renew when its supply agreement expired in June 1984.

The Pietrases sought injunctive relief under PMPA, and the parties agreed to maintain the status quo pending resolution of the suit.

Amoco's petition to dismiss the suit was granted by U.S. District Court judge Thomas O'Neill, who agreed that the company acted in good faith in not renewing the franchise. He noted that the station had no self-service pumps and sold gas at substantially higher prices than nearby competitors.

Judge O'Neill also noted that the property rated 0.0% in Amoco's profitability index, falling far below the level under which the firm routinely severs retail relationships. At about the same time, nine other stations were also evaluated, and franchises were not renewed at those with ratings below 10%, he said.

The court ruled that Amoco's index was employed in good faith, not as a pretext for ending a business relationship.

Getty Petroleum Adds C-Stores to Station Mix

Getty Petroleum Corp., the new name for superjobber Leo Liebowitz' old Power Test Corp., now has 65 convenience food stores in its 105-station Power Test Div. and is adding more at the rate of six per month.

The company, based in Plainview, N.Y., says it earned $3.3-million in the first six months of 1985, that its gasoline profits improved in June, July and August, and that its multi-faceted expansion program is making steady progress.

Liebowitz says total revenues during the first half were $590-million. Neither the profits nor the revenues were realistically comparable with year-ago figures because Getty did not officially acquire control of the old Getty marketing network until last February.

Power Test adopted Getty as its new corporate name and made Power Test a division. Both names are being used for selling gasoline. Liebowitz says that since the acquisition last February, 105 Power Test stations have been converted to the Getty brand "with a resulting ultimate increase of volume and improved profit margins."

Power Test bought the Getty assets from Texaco as part of a required spinoff to win government approval of the merger.

Pricing Probe Sought

A Washington-based consumer group predicts home heating oil prices will rise as much as 10¢ gal. this winter and says Congress should investigate whether major oil companies conspired to prop up prices.

The Citizen-Labor Energy Coalition said in late September that nationwide home heating oil inventories were down 20% from the same time last year. East Coast inventories were down 25%, according to the coalition's assistant director, Ed Rothschild.

Rothschild said Congress and the U.S. Department of Justice should investigate whether inventories were deliberately kept low through collusion on the part of oil companies. He claimed U.S. refiners slashed production earlier this year during an onslaught of merger activity, despite the fact that imports were declining at the same time.

National Petroleum Refiners Assn. president Urvan R. Sternfels dismissed Rothschild's allegations as "probably irresponsible." Sternfels conceded that inventories are low, but said major oil companies have been hesitant to buy high-priced crude because of expectations that OPEC will cut its prices.

PMAA Survey: Jobber Sales Up, But Profits Are Squeezed

Jobbers continued to hang tough in a fast-changing market, according to a new study, "The 1985 Petroleum Marketing Factbook," by the Petroleum Marketers Assn. of America and the Petroleum Marketing Education Foundation.

The profile study, the first joint effort by the two groups, shows that marketers, despite fewer numbers, are maintaining a firm grip on their share of the market, with over half of the motor gasoline sold, almost 60% of the diesel fuel and more than 75% of home heating oil.

Product sales are up for the average marketer, too, according to the study, reflecting the fewer-but-larger-jobbers nature of the business in the past few years. Jobber fallout may also be slackening. Although 6,000 jobber firms have gone belly up since decontrol in 1981, PMAA says membership in its affiliated associations declined only 2.1% in the 1983-1984 period. The survey went only to members, but that membership represents 92% of the jobber universe, according to PMAA.

Major points brought out in the study include:

- The average jobber sold 7.8 million gals. in 1984, up from 7.12 million gals. in 1982. Medium volume was up to 3.91 million gals. in 1984 from 3.18 million gals. in 1982. Total jobber product sales in 1984 exceeded 82 billion gals.
- Jobber profits, on the other hand, are being squeezed. Net profits after taxes were down to .47% of sales in 1984 from .59% the previous year. Return on assets, at 2.89%, also fell below the 5% prior year figure. Collective assets of PMAA members exceed $15 billion.

Jobbers are streamlining, diversifying and generally running tighter ships, the study shows. The total number of outlets, employees, service vehicles and bulk plants has declined since 1982.

- Number of jobber supplied outlets was off 7.3%, to 99,967, in 1984.
- Number of employees dropped 13% to 239,672, approximately half the total of jobber employees in 1980.
- The service vehicle population is down 9.3% with a big drop in jobber-owner transports of 31.9%.
- Number of bulk plants declined 38% and storage capacity dropped 27% to 1.7 billion gals.

On the plus side, the study points to the trend in direct-operated stations, increases in C-store business and diversification in product sourcing.

PMAA Statistical Quick Reference Sheet
1984 Data

Number of Marketers Represented		10,568
Total Volume of Refined Products Sold		82.9 billion gallons
Employment		239,672
Full Time Employment		177,416
Part Time Employment		62,256
Percent of U.S. Total Refined Products		34.4%
Motor Gasoline		50.0%
Diesel Fuel		59.1%
No. 2 Fuel Oil		75.5%
Number of Marketers by Product	Number	% of Total
Heating fuels Only	1,078	10.2%
Motor Fuels Only	3,942	37.3%
Both Heating & Motor Fuels	5,548	52.5%
Total	10,566	100.0%
Combined Asset Size of Marketers		$15.1 billion
Total Motor Fuels Retail Facilities Supplied		99,967
Total Motor Fuels Retail Facilities Owned		46,046
Heating Fuels Distribution Channels		% of product
Residential		63%
Commercial		18%
Other Fuel Oil Marketers		5%
Industrial		8%
Other		6%
Motor Fuels Distribution Channels		% of product
Direct Owned & Operated		30%
Lessee Dealer		14%
Open Dealer		21%
Bulk End Users		30%
Others		5%
Bulk Storage Capacity		1.7 billion gallons
Number of bulk storage facilities		10,567

Percent of Marketers by Size Distribution

Millions of Gallons Sold	1984	1982	1980
Less than 1.0MM gallons	13.8	18.0	10.0
1.0- 2.49	23.8	26.3	24.1
2.5- 4.99	21.9	20.8	23.5
5.0- 7.49	12.2	9.7	11.2
7.5- 9.99	6.6	6.7	8.8
10.0-14.99	9.3	7.1	12.9
15.0-19.99	3.8	2.8	
20.0-24.99	2.2	1.8	4.1
25.0-29.99	1.7	1.4	
30.0-39.99	1.8	1.5	5.3
40.0-49.99	1.1	1.2	
50.0-and above	1.8	2.7	
Average Volume	7.80	7.12	7.22
Median Volume	3.91	3.18	4.18

Sources: PMAA 1984 Supplier Cup Survey
PMAA 1982 and 1980 Marketer Profile Surveys

The number of stations salary-operated by jobbers jumped 11.6% in the two-year period, while the number of lessee and open dealers declined by 7.6% and 3.9% respectively.

In 1984, jobbers increased the number of C-stores they own and operate to 14,235. Jobbers also diversified their sources of supply, says the study, "with the typical marketer having as many as four sources of product."

Use of computers and electronics is soaring, the PMAA/PMEF study shows. Computer use by jobbers jumped from 49.4% in 1982 to 63% in 1984. Use of automated fueling systems rose from 33.7% to 44%, with another 21% of the responding jobbers saying they plan to install AFS systems this year.

The study reports that jobbers still sell about 70% of their product under a major flag, and that 80% of their product purchases are from integrated refiners.

1984 Diversified Operations

Operations	# of Operations
auto repair/maintenance center	7,081
auto/truck/trailer rentals	638
beverage (only) stores	228
car washes	2,961
convenience stores	14,235*
fast food operations	1,002
heating/air conditioning service	3,189
kerosene heater sales	1,275
lube centers	1,549
plumbing service	501
tire/TBA stores	3,507
truck stops	1,734
towing service	911
coal sales	164
other	1,000

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*This number may appear unusually large and contains not only owned but also franchised operations. Additionally, it is not directly comparable to other convenience store estimates. For example, many industry estimates of C-store populations are based on census data. This data would count a retail facility as a C-store if and only if more than 50 percent of revenues were generated from C-store merchandise. Therefore, a store selling 60 percent motor fuels would not be included in the census estimates. It might, however, be included in a marketers definition of a C-store.

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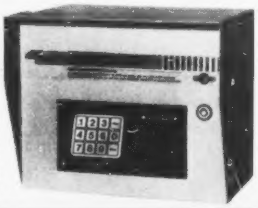

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Product Consumption Data Affirm Texas's Role as No. 1

Texas, which has more oil wells than any other state (200,000-plus), and more crude production as well (900-million-plus bbl. in '84) also is the nation's No. 1 consumer of oil products.

The latest update indicates that Texas accounted for 665-million bbl. of products last year, almost 100-million bbl. more than California at 575-million bbl.

The statistical data were pulled together by Independent Petroleum Assn. of America for its yearbook, "The Oil & Gas Producing Industry in Your State, 1985-1986," which was published in late September (See adjoining table).

California was the nation's biggest consumer of gasoline in 1984—275-million bbl., substantially ahead of secondplace Texas at 249-million bbl.

But Texas reigned supreme in consumption of aviation fuels, middle distillates and propane. The middle distillate statistics include kerosine and diesel fuel for transportation so it can easily be seen that much of this went into agricultural uses.

Rhode Island, smallest state in the Union, nevertheless was not the last in the rankings—as might be expected. It consumed 26.5-million bbl. of petroleum products last year, not quite four times that of Vermont, at 6.8-million bbl.

By way of comparison, Vermont's total consumption for 1984 would have lasted about 3-½ to 4 days in Texas.

Total products consumed in the U.S. last year amounted to 5.8-billion bbl. That averages out to 15.8-million b/d.

Finding new oil to replace the oil that's produced is a costly affair. The IPAA data shows that offshore wells cost an average $386.59 per foot to drill versus $69.85 per foot for onshore wells.

In 1983, the U.S. industry drilled 1,270 offshore wells to an average depth of 10,104 feet. The total cost for these wells alone was $5-billion, or an average of $3.9-million per well.

Onshore wells ran an average depth of 4,352 feet. There were 66,266 in 1984, at a total cost of $20-billion, or an average cost of $304,000 per well.

New Mobil Super Unleaded

Mobil Oil is now on the market with a new super unleaded with double the amount of detergent to help clean up dirty fuel injectors and boost engine performance in new cars. The new product has replaced Mobil's conventional super unleaded gasoline.

Mobil says the new fuel was designed specifically for the high-tech engines on today's highways.

Major auto makers recently identified clogged port fuel injectors as a growing problem with the new cars, says Mobil, adding: "Our research has proven that one to two tanksful of the new Mobil super unleaded formulation can actually clean clogged fuel injectors and improve overall engine performance." **NPN**

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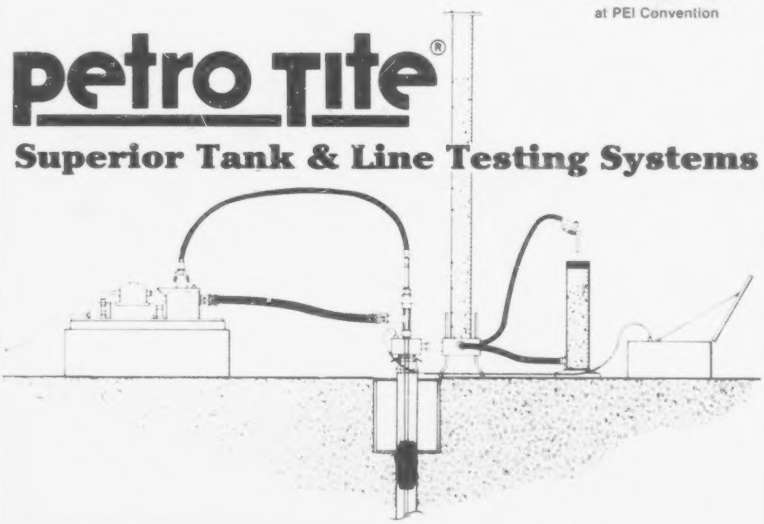

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Product Consumption in 1984—State by State

(Add 000 bbl.)

	Motor Gasoline	Aviation Fuels	Middle Distillates(a)	Residual Fuel	Asphalt Road Oil	Propane	All Other(b)	Total Products
Alabama	41,155	2,985	15,541	2,186	4,121	3,583	10,679	80,250
Alaska	8,775	13,422	11,424	714	498	144	5,369	40,346
Arizona	33,496	4,097	7,639	238	2,825	286	7,457	56,038
Arkansas	26,952	598	12,688	641	861	3,297	6,913	51,950
California	274,876	52,834	83,889	59,067	17,350	10,413	76,507	574,936
Colorado	37,240	8,137	11,870	138	3,512	2,517	9,734	73,148
Connecticut	31,529	980	15,734	32,209	1,062	1,072	12,677	95,263
Delaware	6,894	84	8,979	3,692	270	562	3,144	23,625
Dist. of Columbia	3,677	96	3,304	(c)	23	—	1,090	8,190
Florida	118,880	18,848	30,780	40,391	7,903	7,669	34,455	258,926
Georgia	67,093	14,291	20,175	3,424	6,410	5,118	17,884	134,395
Hawaii	8,121	10,415	2,834	11,959	233	288	5,196	39,046
Idaho	9,796	319	5,168	333	539	532	2,561	19,248
Illinois	99,327	2,164	28,434	1,361	6,511	7,525	22,306	167,628
Indiana	57,001	14,644	28,413	2,330	6,821	5,022	17,534	131,765
Iowa	33,839	564	16,644	357	2,093	7,396	9,347	70,240
Kansas	51,193	2,723	28,763	756	2,192	33,965	18,357	137,949
Kentucky	37,996	2,942	18,096	410	2,467	4,435	10,184	76,530
Louisiana	51,243	10,549	33,699	27,177	2,296	11,206	20,901	157,071
Maine	12,970	416	9,651	10,766	1,266	562	5,469	41,100
Maryland	42,518	2,250	17,379	8,911	5,702	1,611	12,030	90,401
Massachusetts	51,951	6,563	34,911	42,990	1,248	1,224	21,319	160,206
Michigan	94,150	4,310	24,143	1,672	3,172	8,397	20,851	156,695
Minnesota	57,301	7,140	24,708	1,393	5,308	5,523	15,560	116,933
Mississippi	29,744	1,239	15,381	4,953	4,048	6,435	9,486	71,286
Missouri	55,560	5,398	17,140	352	4,502	4,896	13,484	101,332
Montana	12,027	627	7,400	633	1,382	1,187	3,570	26,826
Nebraska	17,400	648	11,382	238	718	3,533	5,206	39,125
Nevada	10,888	3,591	5,355	54	853	522	3,264	24,527
New Hampshire	5,556	281	6,178	4,068	1,100	775	2,756	20,714
New Jersey	103,564	40,267	78,591	41,172	7,095	2,653	41,957	315,299
New Mexico	19,146	1,067	8,639	487	2,161	5,338	5,654	42,492
New York	109,968	2,373	66,171	64,482	6,124	4,984	39,003	293,105
North Carolina	70,446	3,781	27,063	6,173	4,377	6,246	18,126	136,212
North Dakota	10,118	211	8,431	853	1,132	2,991	3,643	27,379
Ohio	107,087	6,179	38,667	2,361	7,822	4,772	25,617	192,505
Oklahoma	43,398	4,501	18,706	1,621	3,516	9,115	12,411	93,268
Oregon	30,936	1,854	16,411	3,257	2,863	1,149	8,668	65,138
Pennsylvania	108,545	9,987	54,609	22,520	4,617	4,896	31,493	236,667
Rhode Island	10,533	386	8,563	1,749	1,519	205	3,523	26,478
South Carolina	35,370	542	11,309	2,939	1,412	3,168	8,402	63,142
South Dakota	9,075	208	5,777	64	915	1,516	2,695	20,250
Tennessee	62,457	3,392	26,944	610	4,339	2,006	15,311	115,059
Texas	248,828	57,790	131,562	50,825	12,197	75,357	88,499	665,058
Utah	16,757	2,493	6,603	749	1,524	965	4,465	33,556
Vermont	2,646	154	1,831	234	257	765	904	6,791
Virginia	58,435	7,334	26,425	9,647	4,158	2,276	16,620	124,895
Washington	46,305	13,100	24,277	9,011	2,986	2,019	14,996	112,694
West Virginia	14,422	203	6,912	1,433	543	560	3,695	27,768
Wisconsin	47,582	1,400	19,328	143	1,723	5,580	11,628	87,384
Wyoming	7,140	179	9,109	343	1,390	3,295	3,293	24,749
TOTAL U.S.	**2,551,906**	**350,556**	**1,153,630**	**484,086**	**169,956**	**279,551**	**765,893**	**5,755,575**

(a) Includes kerosine;
(b) Includes naphtha, lubricants, waxes, petroleum coke and still gas;
(c) Included with Maryland data.
Source: The Oil & Gas Producing Industry in Your State, 1985, published by Independent Petroleum Assn. of America; Energy Information Administration and The Asphalt Institute

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December 1985 $4.50

Fuel Oil Marketers Sweat Low Stocks
Majors Moving to Shorter Battery Lines
PMAA Panel: Where is Restructuring Headed?

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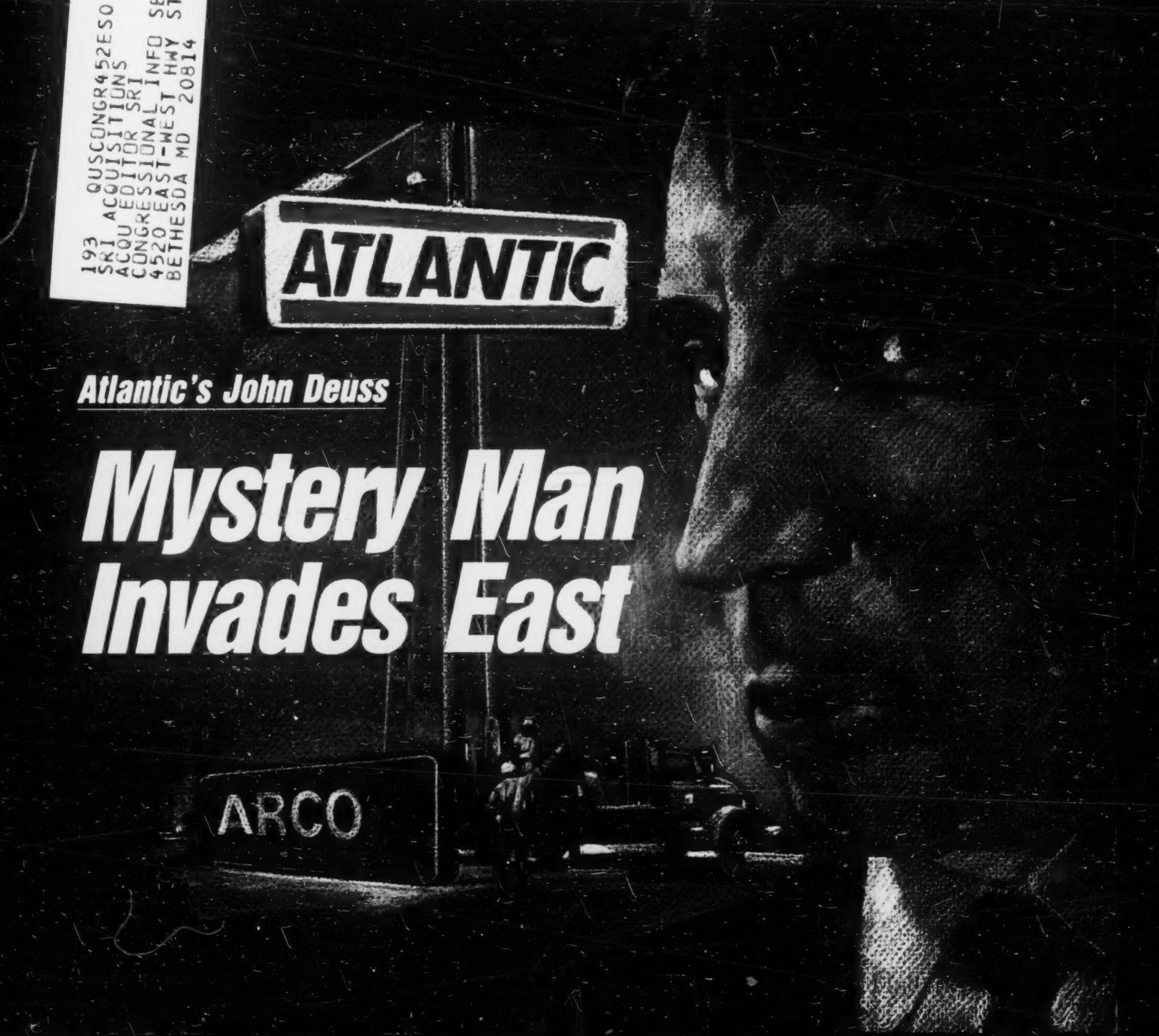

Atlantic's John Deuss

Mystery Man Invades East

NATIONAL PETROLEUM NEWS

DECEMBER 1985
VOL. 77 NO. 12

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The new red, white and blue signs won't be on the pumps until spring, but already the managers of John Deuss' new Atlantic Petroleum Corp. are moving aggressively to position themselves for a run at the volatile East Coast market. **Page 30**

Extreme pressure on oil prices and more restructuring and consolidation of oil companies can be expected over the next few years, an economist and panel of marketing vice presidents told the Petroleum Marketers Assn. of America convention in Nashville. **Page 25**

It wasn't until mid-October that refiners, importers and others began to refurbish the primary supplies of distillate fuel oil which had been allowed to languish at sub-normal levels all summer long and late into the fall. The question is: Did they wait too long? **Page 42**

• TRENDS

Does Five-State Rebellion Threaten SSDA Future?

The Service Station Dealers of America (SSDA), once a strong and powerful lobby force, is having its problems nowadays due to dissension over its leadership and lobbying efforts. Five state affiliates, including some powerful ones, have broken away in the past year and formed the National Coalition of Petroleum Retailers (NCPR) for the type of lobbying they want done.

The present dissension raises some questions as to whether SSDA's present leadership can restore harmony and effectively remain the national dealer voice.

Most observers close to the situation say most of the dissension lies in five state affiliates which have more or less dropped out of SSDA. They claim that almost all of SSDA's 30-plus other affiliates remain committed to SSDA and its leadership.

The five rebellious affiliates, however, are numbered among SSDA's more powerful state groups. These are Georgia, Michigan, New Jersey, Pennsylvania/Delaware and Texas. In the past, they have had a strong voice in directing SSDA's lobbying efforts.

SSDA has had its internal problems for several years, according to some dealer state executives, going back to the death of SSDA executive Charlie Binsted in 1978. Following Binsted's death, it went through a succession of directors until Vic Rasheed in 1982. Some state affiliates haven't been pleased with Rasheed's leadership, either, while others think he is doing a good job.

According to Rasheed's supporters, some of the rebellious states considered themselves "power brokers" in the national group and have been disappointed in not getting SSDA to totally follow their lobbying wishes since Rasheed came in. According to the dissenters, SSDA has misdirected its legislative priorities and has had an ineffective lobbying effort for the last two or three years.

Whatever the cause or causes of dissension, there are now two groups trying to represent the dealer voice on key federal legislation. The split is especially noticeable in efforts to amend the Petroleum Marketing Practices Act.

SSDA is backing a PMPA amendment bill introduced last May by Reps. Mike Synar (D-Okla.) and Ron Tauke (R-Iowa) which the Petroleum Marketers Assn. of America (PMAA) also supports. NCPR, meanwhile, formed by the dissenting state dealer groups, has had Rep. James Florio (D-N.J.) introduce another version which is similar to the Synar-Tauke bill except that it eliminates the jobber "provisions" of Synar-Tauke, especially those concerned with pricing protection.

Some of the new NCPR group say there is no chance of getting the Synar-Tauke bill through Congress because of its pricing protection provisions. They believe the Florio bill has a better chance. SSDA's non-dissenters are sticking to support of Synar-Tauke, partly because they doubt any PMPA amendment can be passed without jobber support.

Whatever the outcome of the PMPA amendment proposals, there is no sign that a reconciliation will occur between SSDA, and the five dissenting affiliates say they won't return to SSDA until it "redirects its priorities."

Beyond the legislative issues, the dissident state executives charge that SSDA and Rasheed spend too much time on "fund-raising" activities and not enough on legislative work. "If it weren't for the group insurance programs, I think SSDA would fall apart," says one state executive.

SSDA defenders maintain, on the other hand, that the association is making progress in Congress and has recently beefed up its lobbying effort by hiring a staff attorney. They cite SSDA's help in getting a graduated cap into the Superfund proposal (see Page 28) and other successful efforts that tend to get lost in the PMPA amendments squabble.

It would seem that with five of its more powerful state affiliates breaking off and trodding their own path, SSDA's continued existence might be in doubt. If the present dissension continues, is it possible that the new five-member coalition will pick up supporters and become the primary national dealer group? Or, will the dissenters eventually return to the SSDA fold?

SSDA supporters say NCPR, the five-member coalition, poses no threat to SSDA's continued existence.

"We may have problems in SSDA but the way to get things changed is to work within the organization," says one state executive. On the other hand, at least one of the dissenting affiliates has been described as ready to "jump ship" and apparently begin efforts to replace SSDA.

It will take time to learn just what direction the dealers eventually go in. But at the moment, as even its defenders admit, SSDA's lobbying effectiveness has been weakened by dissension within its ranks. —*Donald M. Smith*

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

SEPTEMBER	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.209	$1.129	$1.216	$1.349
Regions:				
Northeast	1.229	1.145	1.220	1.345
North Central	1.220	1.149	1.237	1.380
South	1.194	1.110	1.198	1.338
West	1.197	1.118	1.204	1.349

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	11/1/85	11/2/84
Gasoline (total)	215,796	231,419
Gasoline (Unleaded)*	108,099	109,294
Jet Kerosine	36,509	40,367
Distillates	125,260	156,170
Residual	49,142	51,169

**Included in gasoline total.*
Source: American Petroleum Institute.

Oil Companies Get Boost from Downstream

Firmer gasoline prices, even though they were on the down side, plus better margins and increased consumption, enabled most of the top oil companies to post modest to respectable increases in their downstream profits in their third-quarter and nine-month earnings reports.

Corporate profits were something else again, however. Except for Texaco and Kerr-McGee, just about all of the others had minus signs in comparing third-quarter '85 versus third-quarter '84. Texaco was up 28% for the '85 quarter and Kerr-McGee, 84%.

Mobil would have had a profitable third quarter but it wrote off more than a half-billion to restructure subsidiary Montgomery-Ward and that gave it a net loss of $116-million. Similarly, Sun wound up with a $106-million deficit because it charged off $275-million to cover some divested assets. Tenneco took a $240-million write-off in the third quarter and reported a net loss of $135-million. Arco had a good third quarter but it discounted more than $1-billion in the first half for restructuring and also wrote off substantial sums in third-quarter '84 for similar structural changes [*NPN*—Sept. '85, p36].

The downstream profits were most interesting, however. All of the top suppliers except Shell noted substantial improvement in the third-quarter. Percentagewise, the increases were sometimes spectacular (see table) but lest they get out perspective the amounts of money involved were really not that much. "Couple of tanker loads of gasoline," one marketer said cynically.

Texaco and Chevron had the more respectable increases in third-quarter '85. Texaco posted downstream earnings of $71-million versus a loss of $109-million in the comparable period of last year, while Chevron posted earnings of $51-million against a loss of $62-million in 1984.

Company	3rd Qtr. 1985	3rd Qtr. 1984	% Chng.	9 Mos. 1985	9 Mos. 1984	% Chng.
Exxon						
Corporate	$995.0	$1,275.0	(22.0)	$3,065.0	$4,100.0	(25.2)
Downstream	*65.0*	*20.0*	*225.0*	*145.0*	*139.0*	*4.3*
Mobil						
Corporate	(116.0)	239.0	—	615.0	984.0	(37.5)
Downstream	*49.0*	*16.0*	*206.0*	*91.0*	*6.0*	*1,416.0*
Texaco						
Corporate	301.0	235.0	28.0	926.0	858.0	7.9
Downstream	*71.0*	*(109.0)*	—	*111.0*	*(258.0)*	—
Chevron						
Corporate	245.0	342.0	(28.4)	946.0	1,100.0	(14.0)
Downstream	*51.0*	*(62.0)*	—	*192.0*	*(117.0)*	—
Amoco						
Corporate	490.0	600.0	(18.3)	1,563.0	1,718.0	(9.0)
Downstream	*102.0*	*65.0*	*56.9*	*203.0*	*114.0*	*78.1*
Shell						
Corporate	365.0	447.0	(18.3)	998.0	1,191.0	(16.2)
Downstream	*35.0*	*43.0*	*(18.6)*	*102.0*	*158.0*	*(35.4)*
Arco						
Corporate	403.0	(519.0)	—	(344.0)	282.0	—
Downstream	*99.0*	*17.0*	*482.0*	*239.0*	*105.0*	*1,276.0*
Tenneco						
Corporate	(135.0)	126.0	—	(92.0)	501.0	—
Downstream	*n/a*	*n/a*	—	*n/a*	*n/a*	—
Sohio						
Corporate	346.0	359.0	(3.6)	1,079.0	1,198.0	(9.9)
Downstream	*96.0*	*52.0*	*84.6*	*313.0*	*170.0*	*84.1*
Phillips						
Corporate	36.0	217.0	(83.4)	252.0	641.0	(60.7)
Downstream	*n/a*	*n/a*	—	*n/a*	*n/a*	—
Sun						
Corporate	(106.0)	122.0	—	(113.0)	402.0	—
Downstream	*30.0*	*3.0*	*900.0*	*106.0*	*9.0*	*1,078.0*
Unocal						
Corporate	158.7	181.2	(12.4)	459.8	547.0	(15.9)
Downstream	*n/a*	*n/a*	—	*n/a*	*n/a*	—
Amerada Hess						
Corporate	36.4	40.6	(10.3)	105.4	174.4	(39.6)
Downstream	*n/a*	*n/a*	—	*n/a*	*n/a*	—
Dia. Sham.	52.8	61.6	(14.3)	(625.5)	185.4	—
Ashland (b)	46.4	(240.8)	—	146.7	(172.5)	—
Kerr-McGee	39.8	21.6	84.3	108.9	99.9	9.0
Pennzoil	44.4	59.0	(24.7)	154.3	179.9	(14.2)
Murphy	18.6	25.3	(26.5)	62.6	75.2	(16.8)
Petrofina	10.2	1.8	467.0	24.4	27.8	(12.2)
Getty Petro.	n/a	n/a	—	n/a	n/a	—
Southland	79.3	56.9	39.4	169.0	129.6	30.4
Crown Central	8.2	(3.5)	—	3.5	(13.1)	—
Total Petro.	33.5	4.2	698.0	74.9	0.6	1,238.0

(a) Downstream basically means refining and marketing although some companies also include transportation.
(b) Fourth quarter and full year; fiscal ends 9/30

Oil Heat Gets Centennial Year Recognition from Pres. Reagan

It took a long time to make all the necessary rounds and get all the essential endorsements but oil heat's 100th anniversary was finally recognized officially in early October with President Reagan's approval of a Congressional resolution saluting the occasion.

Twin resolutions were introduced in the House and the Senate last spring by Rep. Silvio Conte (R-Mass.) and Sen. Patrick Leahy (D-Vt.). It took them all summer to gather the necessary endorsements and passage, finally arriving at the President's Oval Office in early October.

Reagan's advisors chose not to make it a "photographic opportunity" for the media so there are no pictures available of the historic signing.

Petroleum Marketers Assn. of America President David T. Robinson commented: "Heating fuel marketers have provided a century of safe, dependable heating comfort to millions of American homes and businesses, and we salute President Reagan, Mr. Conte and Mr. Leahy for their generous recognition of that achievement."

It was on Aug. 11, 1885 that the U.S. Patent Office granted a patent to David H. Burrell, of Little Falls, N.Y., for his furnace, regarded by industrial historians as the first technically sound oil burner.

Gambling on Low Stock Levels Leaves Industry Vulnerable

It wasn't until mid-October that refiners, importers and others began to refurbish the primary supplies of distillate fuel oil which had been allowed to languish at sub-normal levels all summer long and late into the fall.

The big question is: Did they wait too long?

In mid-October, many industry leaders were beginning to think out loud that maybe they did: that unless the weather itself was extremely cooperative throughout November and December, price spikes of 10¢ and 20¢ gal.—perhaps even 30¢ in one of those worst possible scenarios—seemed to be highly probable this winter.

Price spikes will arouse a storm of controversy from consumers and legislators questioning why there should be any increases in a time of plenty. Some consumer groups and distributor representatives began laying the groundwork for such attacks as early as mid-September.

At the end of September, primary inventories of distillates were less than 120 million bbl. The Department of Energy said 115.3 million bbl. and the American Petroleum Institute said 117.7 million bbl. The differences in the totals result from the fact that DOE uses one set of data and API another.

By J. Richard Shaner
Executive Editor

Either way, however, the so-called average range for distillate inventories should have been around 155 million bbl. on Oct. 1, according to DOE charts which API accepts. Since September inventories were only 115.3 million bbl., this would mean they were down an unhealthy 25%.

Even more discomfiting was the fact that at 115 million to 117 million bbl., the inventories were only 10 million to 12 million bbl. above the so-called minimum operating level. It is at this level (105 million bbl.) and below that the National Petroleum Council says that operating problems and shortages can be expected to occur in the distribution chain.

The industry penetrated this minimum operating level late last winter but managed to get through without serious problems. It had a similar late-winter experience in 1983. This year, however, the industry made no real attempt to recover and replenish its inventories in the summer months and especially in the August period, as part of the prewinter buildup of stocks.

Instead, it cut back on refinery throughput and imports, which had been averaging better than 200,000 b/d in previous years, and bumped along at the 115 million to 117 million bbl. level right through September into early October. Some industry sources interpreted it as brinksmanship of unprecedented character.

With fingers crossed, many jobbers are hoping for a mild winter.

Everyone Waited

Refiners and importers are not the only ones who sat on their hands, however. So did the rest of the distribution chain, from top to bottom. Everyone had an eye on the squabbling factions within the Organization of Petroleum Exporting Countries and the fear that crude prices were going to drop disastrously. Everyone was afraid of being caught with high-priced inventories in a sea of low-priced crude and products, which are pouring into the East Coast from Europe, the Middle East, Latin America and the Caribbean (See related table on Page 44).

Suppliers and distributors alike issued calming statements and responses in August and September that even though the inventories were down, there was no real danger; that the industry could crank up the refineries in a hurry, and/or boost the import levels rapidly with spot market purchases.

That sounded good in September but somewhat hollow in October.

New England and the Middle Atlantic states account for about 75% of the distillate that is used for residential heating. A sudden cold spell that hangs on in the Northeast thus could make a run on supplies and perhaps deplete them at a faster rate than they could be replaced.

For example, 50% of the fuel oil consumed on the East Coast comes from Gulf refineries. It takes at least three to four weeks for the distillate to traverse the distance from the Gulf to New England ports. East Coast refineries only account for about 10% of the consumption so their output wouldn't have appreciable impact.

There should be product on the spot market. But if Europe should have chilly weather at the same time, that distillate either wouldn't be available for U.S. markets or it would be priced considerably higher as bidders raised the antes.

Most sources agree that one way or another distillate would be found for the homes and industries of the Northeast and other parts of the country. But the possibility of a price spike has many people worried.

"Serious Situation"

Edwin Rothschild of the Citizen/Labor Energy Coalition in Washington is already on record with a statement that the heating-oil regions are facing a "very serious situation" both as to supplies and prices.

Jeff Raynes, president of Massachusetts Better Home Heat Council, was quoted as saying that "any thought that

Distillate Sales in '84 by Key Categories (a) (Thousands of gals.)

Destination	Residential	Commercial	Industrial	Farm	On-Highway	Total (b)
U.S. Total	8,215,772	5,538,184	2,555,898	3,201,600	16,797,423	45,671,779
PAD District 1 Total	6,477,746	2,670,067	875,249	405,194	5,172,003	17,715,724
New England	1,962,096	592,740	113,565	20,049	662,466	3,520,444
Connecticut	479,613	166,996	41,373	3,057	183,583	897,195
Maine	167,279	72,287	17,445	5,713	116,662	394,903
Massachusetts	906,434	280,964	33,016	4,118	252,545	1,578,420
New Hampshire	156,036	20,873	4,883	2,381	40,593	231,764
Rhode Island	149,300	29,795	10,001	1,023	32,809	239,347
Vermont	103,434	21,824	6,845	3,757	36,274	178,814
Central Atlantic	3,825,923	1,490,867	421,876	119,084	1,886,467	8,509,245
Delaware	70,456	15,605	11,254	5,332	46,602	166,355
District of Columbia	28,597	51,254	421	—	21,393	138,980
Maryland	312,943	143,933	55,106	20,058	208,168	878,244
New Jersey	827,898	369,864	72,744	9,610	436,162	1,929,961
New York	1,517,545	615,610	128,523	40,498	439,452	2,854,000
Pennsylvania	1,068,483	294,601	153,828	43,585	734,690	2,541,703
Lower Atlantic	689,727	586,480	339,808	266,061	2,623,070	5,686,036
Florida	25,491	111,742	74,459	74,685	664,162	1,29[illegible],551
Georgia	11,603	111,548	40,858	72,767	633,818	1,036,551
North Carolina	288,082	151,332	63,501	55,956	501,663	1,190,354
South Carolina	60,601	42,933	30,043	24,557	291,490	511,348
Virginia	278,479	141,441	64,472	35,099	408,060	1,168,008
West Virginia	25,471	27,464	66,475	2,996	123,877	486,225
PAD District 2 Total	1,349,472	1,605,107	736,268	1,550,540	5,744,012	13,649,381
Illinois	103,847	254,479	70,379	192,019	574,188	1,678,008
Indiana	130,288	166,680	98,957	96,334	692,209	1,369,851
Iowa	54,644	65,904	15,574	167,064	313,635	688,041
Kansas	2,295	49,537	21,316	123,277	252,239	644,368
Kentucky	36,601	85,382	87,381	46,144	335,968	998,172
Michigan	266,368	134,144	77,183	80,654	425,802	1,107,728
Minnesota	168,745	147,548	34,371	127,232	284,668	836,868
Missouri	37,828	87,402	28,720	99,065	438,179	814,938
Nebraska	13,362	44,828	7,464	161,263	181,983	527,955
North Dakota	49,332	22,773	17,511	98,666	90,792	336,250
Ohio	168,054	192,668	124,872	64,297	810,535	1,579,016
Oklahoma	4,049	32,191	90,869	58,464	401,738	801,487
South Dakota	32,747	11,742	5,408	66,988	95,895	223,544
Tennessee	14,101	107,217	33,288	47,823	503,273	1,023,956
Wisconsin	267,211	202,613	22,975	121,249	342,908	1,019,200
PAD District 3 Total	14,401	518,184	412,250	538,506	2,944,470	6,842,938
Alabama	1,567	33,141	51,782	35,748	345,705	630,772
Arkansas	30	52,651	15,476	126,575	285,945	550,334
Louisiana	99	73,468	50,603	38,202	362,139	1,172,112
Mississippi	158	31,118	47,994	51,359	268,572	542,959
New Mexico	588	16,900	43,374	7,837	168,017	277,945
Texas	11,958	310,906	203,020	278,786	1,514,092	3,668,816
PAD District 4 Total	61,403	123,577	124,446	183,736	644,378	1,573,083
Colorado	5,068	30,357	22,995	66,889	202,150	439,140
Idaho	21,796	14,757	13,529	51,427	93,509	226,876
Montana	16,686	41,020	17,157	47,884	113,853	355,045
Utah	6,085	29,191	36,158	7,191	130,617	272,102
Wyoming	11,767	8,251	34,607	10,344	104,249	279,920
PAD District 5 Total	312,701	621,250	407,686	523,625	2,292,560	5,890,654
Alaska	61,418	53,543	26,827	1,054	98,646	345,171
Arizona	28	11,086	52,060	30,300	228,929	414,858
California	6,538	352,376	161,852	365,170	1,399,258	3,309,692
Hawaii	34	5,075	2,364	11,695	17,548	119,084
Nevada	11,200	17,881	24,528	10,941	77,184	234,513
Oregon	94,933	92,510	79,032	47,521	195,543	672,428
Washington	138,550	88,779	61,024	56,944	275,452	794,907

(a) These five categories represent about 80% of the total distillate sales.

(b) Total includes oil company, electric utility, railroad, vessel bunkering, military, off-highway and miscellaneous consumption.

Source: Sales of Fuel Oil and Kerosine, 1984; Energy Information Administration, dated July, published in October, 1985.

European oil will bail us out if supplies get tight is a pipe dream. Even if product was available, there would be at least a three-week lead time before any European product got into our distribution system. In the interim, prices could easily jump up 20¢ or more, just like two years ago."

There are others that were echoing these thoughts in mid-October. No one says price spikes are inevitable, but unquestionably there were more crossed fingers and even toes then than there were in early September.

Governors in New England and Middle Atlantic states, for example, were reported to have been pressing federal and regional energy authorities and oil companies in late September and early October about the distillate supply picture and what they intended to do about it.

Empire State Petroleum Assn.'s Bob Lynch asked Energy Secretary John Herrington to "communicate with major and independent U.S. refiners of distillate to determine their operating plan for the Fall and Winter." The answers are especially important to New Yorkers, more than half of whom rely on oil heat in the winter months.

But while some were apprehensive, others were still nonchalant in mid-October.

Dr. Edwin Murphy, director of statistics for American Petroleum Institute, was one of the latter. He noted that the importance of inventories has lessened in recent years. Whereas homes in the 1970s used to average 1,500 gal. of distillate a year, they now average less than 900 gal., he said. A decade ago, he added, refineries were operating at 90% of capacity to keep up. Today, they are running around 79% —so there's room to spare. "It used to be that refineries couldn't produce enough oil during the heating season to provide for current consumption. That's no longer the case," he said. An API study last summer confirmed that most of the winter's heat oil's needs are coming from current output rather than basic inventories.

Weather All Important

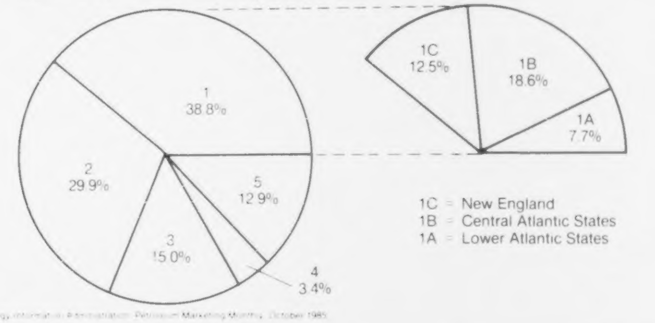
Much depends on the weather; in fact, as one distributor said, the "whole ball game is hanging on it now."

If the weather is relatively normal in November and December and not too difficult in January and February, then the industry gamble on low inventories will have paid off. The supplies which began to pour into the primary tank lines and teminals in mid-October, plus the moderate increases that can be expected, should be able to take care of consumer need.

A note of optimism was the forecast of National Weather Service which said in mid-October that November-December temperatures throughout the eastern U.S. should be warmer than average. But NWS's track record as a forecaster hasn't been exceptionally bright. Matter of fact, it was NSW that only a few years ago predicted the coldest winter weather of the century, which somehow turned out to be one of the warmer ones of recent years.

If, however, the weather is cooperative,

1984 — Distillate Fuel Oil Sales by PADs



Source: Energy Information Administration, Petroleum Marketing Monthly, October 1985

First Half Shows Drop In Distillate Imports

Distillate fuel oil is being brought into East Coast marketplaces from overseas by a surprising variety of importers, ranging from oil companies, terminal operators, independent marketers, brokers, traders, and truck stops.

In the first six months of 1985, 54 importers brought in 62.5 million bbl. at an average rate of 171,081 b/d.

Last year, the list was much longer with 80 companies involved in Pad I alone. They imported 88.6 million bbl. of distillate in 1984 at an average rate of 242,930 b/d.

In 1983, the first year that distillate imports showed an appreciable increase on the East Coast, there were 68 importers with a total of 50.8 million bbl., an average of 139,373 b/d.

The biggest "importer" in the past three years was Amerada Hess. But Hess's refinery is located in the U.S. Virgin Islands, and the product being brought in is comparable to that of an on-shore refinery processing foreign crude, rather than distillate from Europe, the Middle East and Latin America.

Leading importers include Global Petroleum, of Boston; Northeast Petroleum, Chelsea, Mass.; Northville Industries, Mellville, N.Y.; and Wyatt Inc., New Haven, Conn.

Among the big oil companies, Sun shows up in 1983, '84 and '85 as a somewhat consistent importer. It ranks 20th on the list in 1983, eighth in 1984 and sixth in the first half of 1985, running at a 3 million bbl./year rate in the last two years.

Texaco, Chevron, Gulf, Koch and Ashland are among the other oil companies bringing in distillate from abroad.

The import data are collected by the Department of Energy and are made available to the industry on a subscription basis by the American Petroleum Institute. The tables are confusing; they make no attempt to summarize import and domestic totals to put company activities into perspective or even offer more than minimum identification of the companies that do the importing.

Importers of distillate in PAD District I for the past two and one-half years are as follows:

East Coast Distillate Importers

First Half of 1985

Company	(b/d)	Total Volume (000 bbl.)
Amerada Hess	33,421	6,090
Global Petroleum	16,793	3,065
Northeast Petroleum	12,593	2,298
Wyatt, Inc.	12,018	2,193
Northville Industries (a)	10,860	1,982
Sun	8,307	1,516
Coastal States	7,517	1,372
Striker Industries	7,315	1,335
Langham-Hill	6,155	1,123
Belcher Oil	6,027	1,100
Scanoil, Inc.	5,050	922
Steuart Petroleum	4,893	893
Ultramar Petroleum	4,658	850
Eastern Seaboard	3,789	701
Bulk Oil	3,710	677
Texaco	3,247	593
T. W. Oil	2,689	491
Colonial Oil	2,092	382
Cecil William	2,012	367
Sipco Oil	1,638	299
Astroline Corp.	1,461	267
UPG, Inc.	1,265	231
Ore/Chem. Co.	1,229	224
Astroline Pacific	1,214	223
Vanol USA	1,156	211
C.H. Sprague	1,148	210
Pilot Petroleum	1,126	205
Noco Trading	1,072	196
Gulf Oil	995	182
Koch Industries	969	177
Doug-Long, Inc.	772	141
Goetz Oil	694	127
Ashland Oil	683	125
Vitol Trading	602	110
Massena Petroleum	382	70
D/C Transportation	284	52
S. B. Collins	251	46
Petroleum Sales/Svc.	159	29
Centurion Motors	214	39
Econo Fuels	173	32
R. L. Vallee	170	31
Petro. Sales/Svc.	159	29
Welch Energy	49	9
Sears Oil	38	7
J. E. Fortin	37	7
1211 Colvin Blvd.	37	7
Eli Tarbell	32	6
Broskin Trucking	32	6
Kildair Service	31	6
Exit 52E Truck Stop	29	5
Buddy's Truck Stop	14	3
Burn's Fuel	6	1
Kemp Oil Heating	5	1
Totals	**171,081**	**62,445**

(a) Includes Northeast Petroleum Corp. and Northeast Petroleum Industries, Inc.

Full Year—1984

Company	(b/d)	Total Volume (000 bbl.)
Amerada Hess	52,221	19,061
Northville Industries	23,224	8,477
Coastal States	16,752	6,114
Wyatt, Inc.	15,307	5,587
Global Petroleum	11,585	4,229
Northeast Petroleum (a)	9,353	3,414
Phibro Distributors	9,138	3,335
Sun	8,552	3,121
Apex Oil	6,952	2,537
Ultramar Petroleum	6,462	2,359
Ore/Chem. Co.	5,798	2,116
Belcher Oil	5,680	2,073
Unipetrol	5,540	2,022
T.W. Oil	5,510	2,011
Chevron	4,498	1,642
Langham-Hill	4,419	1,613
Striker Industries	4,293	1,567
Steuart Petroleum	4,030	1,471
Scanoil, Inc.	3,178	1,160
Cecil William	3,048	1,113
International Marine	2,518	919
Falco, Inc.	2,482	906
Stinnes Interoil	2,438	890
Will Petroleum	2,249	821
Bulk Oil	1,953	713
Eastern Seaboard	1,880	686
Irving Oil	1,824	666
Tenneco	1,800	657
Koch Industries	1,794	655
Colonial Oil	1,724	629
Anaschutz Petroleum	1,203	439
Citgo Petroleum	1,168	426
Sipco Oil	1,021	373
Noco Trading	963	351
Astroline Corp.	899	328
Eli Tarbell	835	305
Goetz Oil	686	250
Avant Petroleum	610	223
Beaumont Oil	609	222
Doug-Long, Inc.	595	217
Johnson Co.	593	216
Vanol U.S.	587	214
Vitol Trading	585	214
Kerr-McGee	548	200
E/F Trading	527	192
Pilot Petroleum	504	184
Tampimax Oil	504	184
Caribbean Gulf	466	170
Augsbury Corp.	452	165
Castle Coal/Oil	445	162
S.B. Collins	377	138
Massena Petroleum	281	103
Ashland Oil	245	89
1211 Colvin Blvd.	219	80
Saber Refining	137	50
R.L. Vallee	129	47
BP North America	87	32
Econo Fuels	76	28
Champlain Oil	62	23
Shell	60	22
Buddy's Truck Stop	60	22
Bradford Oil	55	20
Broskin Trucking	55	20
Cibro Petroleum	55	20
Karam Petroleum	49	18
Centurion Motors	47	17
Oceana Terminal	44	16
J.E. Fortin	34	12
P.J. Hyde/Son	31	11
Burns Fuel	18	7
Peoples Oil	17	6
White Fuels	17	6
Gas-N-Go Enter.	13	5
Couillards Heating	11	4
McCann Foods	4	1
Grace Petroleum	3	1
Akwesasne Fuels	2	.7
Boots Fuels	1	.3
Wicks Fuels	1	.3
Totals	**242,930**	**88,669**

(a) Includes Northeast Petroleum Corp. and Northeast Petroleum Industries

Full Year—1983

Company	(b/d)	Total Volume (000 bbl.)
Amerada Hess	43,331	15,816
Northville Industries	23,554	8,597
Apex Oil	9,255	3,378
Coastal States	5,994	2,188
Global Petroleum	4,397	1,605
Vanol U.S.A.	3,924	1,432
Pilot Petroleum	3,764	1,374
Koch Industries	2,703	987
Northeast Petroleum	2,653	968
Phibro Distributors	2,590	945
Bulk Oil	2,563	935
Tampimex Oil	2,411	880
Scanoil, Inc.	2,261	825
Tampimex Oil Intl.	2,217	809
Will Petroleum	1,998	729
Belcher Oil	1,632	596
Augsbury Corp.	1,414	516
Wyatt, Inc.	1,323	483
Texaco	1,320	482
Sun	1,242	453
Eastern Seaboard	1,184	432
Falco Inc.	1,085	396
Striker Industries	1,014	370
Noco Trading	894	326
Chevron	850	310
Sipco Oil	840	307
Oceana Terminal	725	265
Cecil William	720	263
Eli Tarbell	707	258
Coastal Corp.	663	242
Stinnes Interoil	644	235
Astroline Corp.	591	216
Castle Coal/Oil	584	213
R. L. Vallee	583	213
Seamont Petroleum	569	208
Doug-Long, Inc.	560	204
George E. Warren	557	203
Colonial Oil	522	191
Crysen Trading	522	191
Goetz Oil	511	187
Kern Oil	469	171
1211 Colvin Blvd.	288	105
Coral Petroleum	274	100
All States Asphalt	189	69
Industrial Fuel	146	53
Gas-N-Go Enter.	89	32
Cook Fuel	86	31
Buddy's Truck Stop	76	28
P. J. Hyde	62	23
Western Trading	28	10
Farnsworth Heating	23	8
J. E. Fortin	21	8
Lake Fuels	16	6
Centurion Motors	14	5
Karam Petroleum	13	5
Ashland Oil	12	4
McIntyre Fuels	12	4
Malone Oil	12	4
Akwesasne Fuels	10	4
White Fuels	9	3
D/C Transportation	8	3
Commonwealth Gas	7	3
Econo Fuels	7	3
Boots Fuels	4	1
H. A. Eddy Oil	2	—
Abrantes Fuel	1	—
Unifed Tech.	1	—
Wilna Gromley	1	—
Total	**139,373**	**50,871**

retail prices of distillate are expected to be relatively flat throughout the balance of 1985 and most of 1986. Distillate is expected to be running around $1.02 to $1.03 gal. at year's end and drop down to perhaps $1.01 by the end of the second quarter [*NPN*—Oct. '85, p48].

Image Worries

One of the things that worries the more aggressive fuel oil distributors is what price spikes can do to them and their images vis a vis the running battles with gas and electricity for marketplace attention.

Fuel oil now has an extensive promotion campaign underway in many areas, based on materials designed and supplied by the Metropolitan Energy Council of Greater New York.

"We've been making a lot of headway," said one marketer. "So much so that the gas industry particularly is beginning to fight back with a cohesive ad campaign of its own attacking oil as obsolete.

"What scares me is that if we have a couple of price spikes during a time of glut, we'll never be able to talk our way out of it—no matter whose fault, or how it happened.

"It could jeopardize everything we've done so far." **NPN**

Consumers Group Says Home Owners Lose on Gas Conversions

New York City's Department of Consumer Affairs says fuel switching is neither the wisest nor the most economical move that conservation-minded home owners can make these days.

The Department's Research Division came to this conclusion after a lengthy study of conservation techniques, and potential consumer moves to take advantage of them.

This is what the Consumer Affairs Department reported recently:

"Fuel conservation, rather than fuel conversion, is the most cost-effective means of ensuring permanent savings.

"Based on the oil bill, a new furnace or boiler could have saved N.Y.C. home owners up to 35% or $2,711.56 from 1980 to 1984—$199.60 more than the $2,511.96 saved through converting to gas.

"Upgrading oil equipment with a new flame-retention burner can shave almost 25% of oil heating season bills at a relatively modest cost.

"Home owners using either oil or gas are best advised to remain with their current fuel, particularly if they are well satisfied with the service they receive, and simply take measures to use less [of the fuel]."

The same sort of an idea prevails for apartment-house owners, the research study suggests.

This is what it has to say on this score:

"Converting from oil to gas is even less attractive for apartment buildings using #4 and #6 oils, which are cheaper than #2 oil.

"Since 1980, the annual apartment gas bill has averaged only $20.59 less than the oil bill. In 1983 and 1984, the annual average gas bill averaged $51.12 more than the oil bill, so there is actually some incentive to switch from gas to oil, particularly in larger buildings where the savings per unit can add up.

"However, the gas distributors often discounted rates to larger buildings that would otherwise switch to #6 oil so apartment owners, like home owners, should probably investigate other means of cutting energy costs rather than simply switching fuels."

Sales of Distillate, Resid and Kerosine by End Use in 1984

(Thousand Gals.)

End Use	Distillate Fuel Oil	Residual Fuel Oil	Kerosine
U.S. Total	45,671,779	18,347,827	1,771,770
Residential	8,215,722	-	516,393
Commercial	5,538,184	1,539,124	799,748
Industrial	2,555,898	3,498,873	241,425
Oil Company	848,083	1,249,935	-
Farm	3,201,600	-	32,167
Electric Utility	648,665	6,980,119	-
Railroad	2,944,694	1,007	-
Vessel Bunkering	1,763,782	4,580,688	-
On-Highway Diesel	16,797,423	-	-
Military	700,788	95,718	-
Off-Highway Diesel	1,756,077	-	-
All Other	700,864	402,363	182,037

Source: Energy Information Administration, October 1985.

Why Inventories Are Down as Winter Starts Up

Stocks (Million bbl.)

	This Year	Last Year	% Change
Sept.	115.3	142.9	-19.3%
Aug.	116.3	133.3	-12.8
July	115.5	124.4	-7.1
Imports (Add 000 b/d)			
Sept.	144	291	-50.5
Aug.	95	259	-63.3
July	95	199	-52.3
Production (million b/d)			
Sept.	2.5	2.7	-7.4
Aug.	2.6	2.7	-3.7
July	2.6	2.7	-3.7
Refinery Utilization (Per Cent)			
Sept.	77.3	78.0	—
Aug.	79.0	78.2	—
July	80.0	79.7	—

Sources: DOE and API

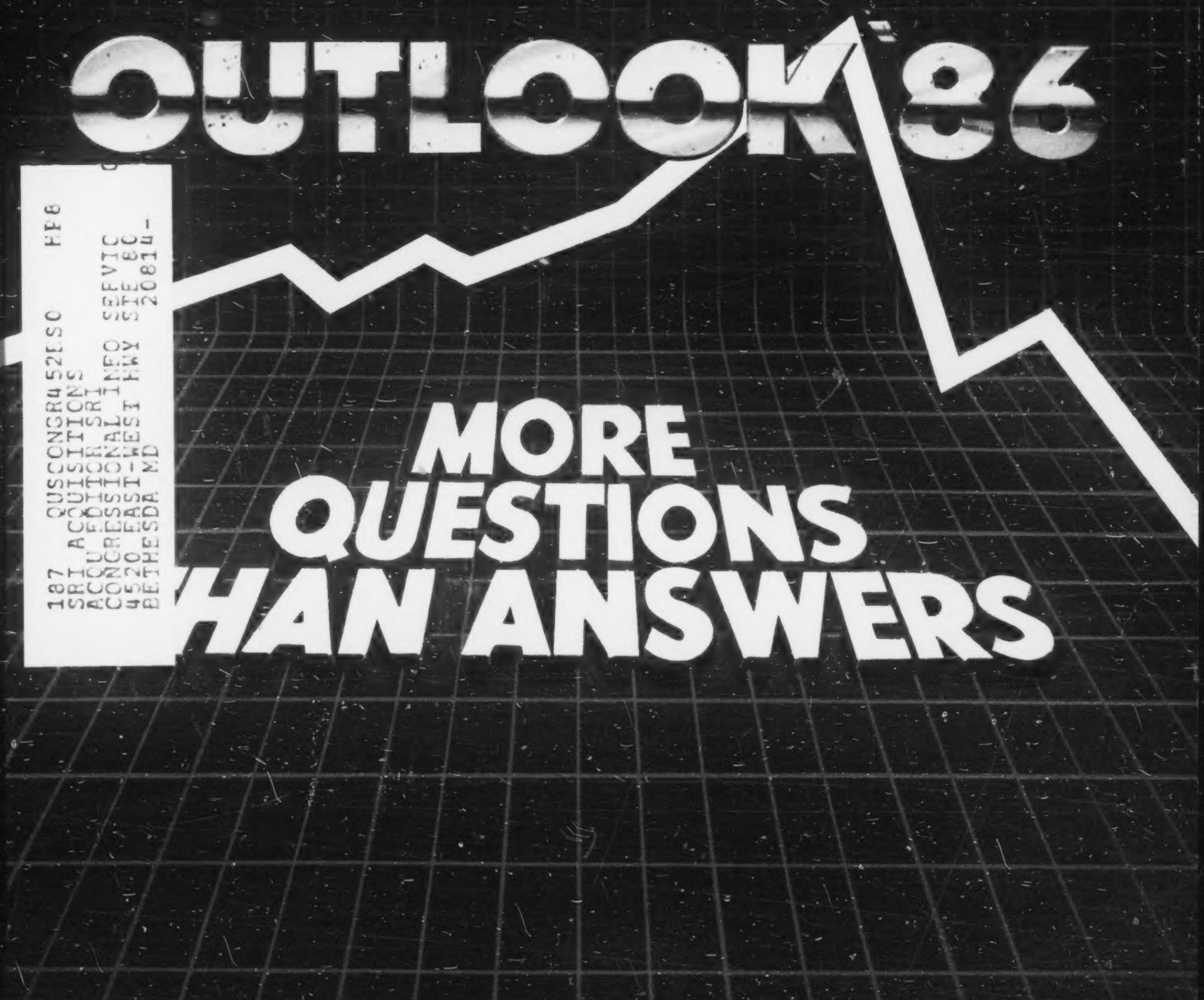
C4680-1

January 1986

$4.50

Why Bill Quortrup Likes Auto Service
Is Cumberland Now the No. 1 Retailer?
Sohio Tries Stand Alone Car Care

NPN
National Petroleum News



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MORE QUESTIONS HAN ANSWERS

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NATIONAL PETROLEUM NEWS

JANUARY 1986 VOL. 78 NO. 1

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It is the type of annual outlook which, in times past, would have had oil marketers reaching for their nerve pill bottles. Here's what the experts say about supplies, prices, lead phasedown, underground tank regs, insurance coverage, imports and industry restructuring.
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mart
APOLLO

When Illico Independent Oil Co. acquired Apollo Oil Co. last summer, it not only added 25 million gal./year in gasoline sales and 11 newly-upgraded C-stores, it also benefited from the bandwagon effect of months of intensive Apollo advertising and promotional efforts in Peoria, Ill.
Page 38

Standard Oil Co. of Ohio (Sohio) is attempting to revive a hot idea of the 1960s which had pretty much fizzled out in recent years—large, company-operated automotive repair centers. **Page 42**

• TRENDS

What Do The New Service Station Projections Mean?

This time last year, it had almost been taken for granted that the decade-long slump in the retail service station population would come to an end in 1985. It had been assumed that a bottoming-out process was underway and that 1986 somehow would be different. Even a zero-zero projection, after so many years on the downhill toboggan ride, would seem like a ray of sunshine.

Much cold water has just been thrown on those bright hopes and dreams, however.

Updated, soon-to-be-published statistical projections from the federal government's Bureau of Industrial Economics indicate the shakeout not only didn't slacken the least bit in 1985 but also that it will continue in 1986. The 1985 loss had been expected to be about 2,000 stations. That would have been the smallest drop yet, if it had come out that way. The new calculations put the 1985 loss at 7,500 stations—triple the original forecast and then some. The 1986 projection anticipates 3,500 more will be gone by the end of this year. That's a two-year loss of 11,000 retail outlets. (See related story on Page 28.)

But before perspectives are lost, hands are wrung and calamitous wails go up, gasoline marketers would be well advised to back off and evaluate these new statistics against the industry that exists today, not the one that used to be when such population comparisons were more meaningful.

For example, both the Bureau of Industrial Economics and the U.S. Census Bureau count only those stations that generate 50% or more of their sales dollars from gasoline. Automatically excluded from this population total then are thousands of convenience stores, garages, mass merchandisers, fleets and other places which also retail gasoline.

In the '60s and the very early '70s, these exclusions didn't make much difference because the great majority of the gasoline outlets were "true" retail service stations. Now, however, close to 35,000 C-stores retail gasoline (Southland, for example, sold almost 2 billion gal. in 1985 and Cumberland Farms later this year could become the nation's biggest independent retailer at 2.65 billion gal./year). (See story on Page 23.)

Not considered either are other thousands of dispensers known to be out there. Hunter Publishing Co., which is *NPN*'s parent, currently estimates the retail station universe to be 187,000, of which 115,000 have repair bays and 34,500 others do not. Add in the C-store vendors and the truck stops and the Hunter total is 187,000. This is a respectable total which most marketers will agree with.

Do not discount the new government figures, however. But use them for what they now are—benchmarks in the year-to-year comparisons of the "true" service station population, not the gasoline marketing industry as a whole.

A factor to be considered too is that no one has a hard nose count that's strictly a nose count without supplemental "guesstimates."

The Bureau of Industrial Economics, which is a unit of the Commerce Department, as is the Census Bureau, has been counting service stations for more than a quarter of a century in its annual franchising report. All things considered, its track record is good and the results interlock favorably with the Census Bureau's retail trade censuses which take place every five years.

But both Bureaus use questionnaires and sampling techniques, business and government reports, industry estimates and evaluations, and simply old-fashioned horse sense based on experience to make their counts. This is why there are so many gray areas and often differences in industry population estimates.

The new government projection, which will be published later this month, indicates that the "true" retail service station population declined from 132,080 outlets in 1984 to 124,600 in 1985 and will continue to drop in 1986 until it reaches approximately 121,000 next December.

Since the peak year was 1972—226,500 stations—this means the industry is within spittin' distance of being just one-half of what it used to be. If 1986 should be like 1985—worse than what is now expected—the half-size figure could be reached by the end of this year. As it is, the shakeout has cost marketing a total of 102,000 conventional stations in the 13-year span 1973 through 1985.

This is not all bad, however. The surviving industry is much stronger—economically and physically. Thousands of replacement or remodeled stations are now geared up to handle 100,000 to 500,000 gal./month and up.

The surviving stations are doing well over $100 billion worth of business a year. Interestingly, these dollar numbers have increased annually as the station population declined.

—J. Richard Shaner

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

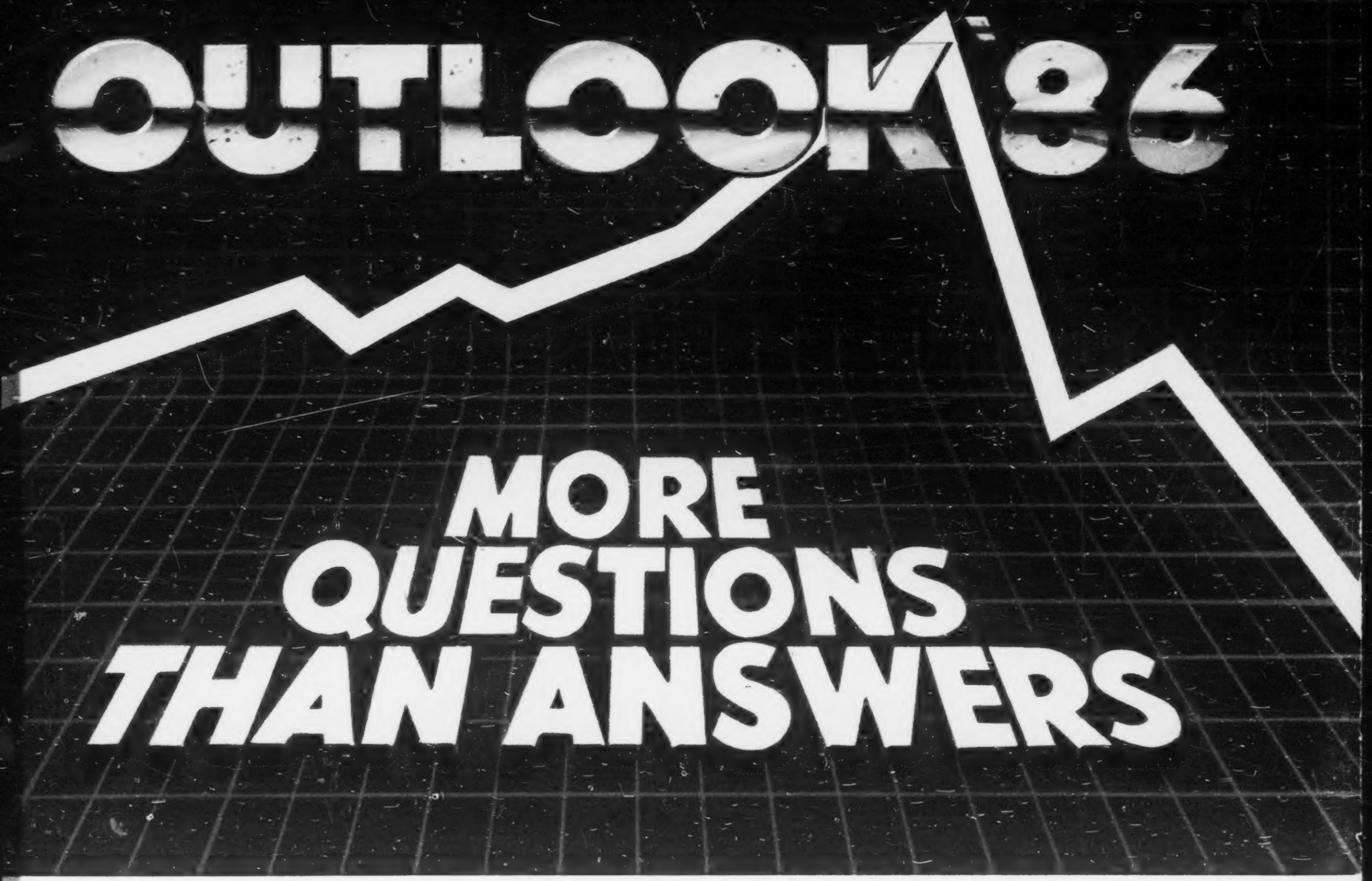
OCTOBER	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.198	$1.117	$1.204	$1.342
Regions:				
Northeast	1.228	1.143	1.219	1.345
North Central	1.198	1.127	1.215	1.361
South	1.182	1.096	1.186	1.330
West	1.193	1.116	1.199	1.344

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	11/29/85	11/30/84
Gasoline (total)	213,155	242,944
Gasoline (Unleaded)*	106,056	111,572
Jet Kerosine	38,022	39,378
Distillates	135,455	160,832
Residual	46,713	50,446

**Included in gasoline total.*
Source: American Petroleum Institute.



OUTLOOK 86

MORE QUESTIONS THAN ANSWERS

It is the type of annual outlook which, in times past, would have had oil marketers reaching for their nerve pill bottles.

In a nutshell, the experts are anticipating that 1986 will be a year of:

—Plentiful product supply with little or no demand growth and soft prices.

—Unstable crude oil prices.

—Lots of costly problems meeting lead-free gasoline requirements, vapor recovery regulations, underground tank rules, and other environmental measures.

—A liability insurance "shortage" that will create nightmare situations.

—More retrenchment and restructuring by refiner-suppliers.

—More fallout and consolidations among jobbers, more closings of conventional service stations.

—A continued buildup in imported oil products.

But after three or four years of pretty much similar conditions, marketers nowadays seem to take such predictions in stride.

This was noticeable at the fall meetings of the American Petroleum Institute, Society of Independent Gasoline Marketers of America, and Petroleum Marketers Assn. of America. There was little squawking about things which seemed big issues earlier in the 1980s—credit card fees, stricter credit terms, major oil company direct-retail operations, terminal pricing and so forth.

By J. R. Shaner
Executive Editor

Instead, most marketers today seem aware that the industry is in transition, and few expect to see much improvement in 1986 from the tough conditions that have so far characterized the 1980s.

It is good that they are so conditioned, say the experts, for there is not much in the way of sunshine on the horizon for them during the coming year.

Government and various economic forecasters, in the waning months of 1985, were generally in agreement that the new year will be pretty much of a holding action for most marketers. They didn't see the outlook as totally bleak, however.

They figured in December that 1985 demand would be up slightly over 1984 but that things would flatten out in 1986 and the year would wind up a bit ahead of 1984 but lag behind 1985.

Product prices, which showed some improvement in the third and fourth quarters of 1985, are expected to erode again in the spring, summer and fall. Crude prices are expected to decline too.

The government experts say it's quite likely that gasoline will be worth about \$1.14 gal. next December and will average about a penny more for the entire year. That would be 4¢ gal. under 1985, and 5¢ gal. below 1984. This is the average for all grades and services.

Distillate fuel oil, the industry's second biggest product by volume, is expected to rise in the first quarter of 1986—a natural happening in the dead of winter—but soften like gasoline so that by year's end the price would be down to \$1.04 gal. That would be about the same as the 1985 average but 5¢ gal. less than in 1984.

Of immediate concern, however, is outcome of the industry's brinksmanship with its fuel oil segment over the fall months.

Primary stocks of distillate were about 115 million bbl. at the beginning of the heating season, the lowest pre-winter level in 34 years [*NPN*—Dec. '85, p42]. In mid-November, they were still not much better—122 million bbl. when theoretically they should have been around 150 million bbl.

Warm weather prevailed throughout most of November in the East where most

". . . the new year will be pretty much of a holding action for most marketers."

of the distillate customers are located. That helped a lot. Despite the optimism that available refinery capacity and plentiful supplies of crude, plus imports, would avert any serious supply problems, the specter of frigid weather and price spikes haunted most marketplaces, however.

Government energy experts said distillate demand should average 3.02 million b/d in the fourth quarter of 1985 and 3.07 million b/d in the first quarter of the new year. This would be 6% to 7% higher than the corresponding year-ago periods. They also said that distillate prices for home owners should average $1.07 gal. this winter, up 2¢ over last winter. Margins, however, are expected to be much better for distillate marketers this winter—about 6.5¢ gal. higher because of the low, initial inventories.

Neither the Energy Information Administration, which issued a revised "Short-Term Forecast" in mid-November, nor Independent Petroleum Assn. of America, which updated its twice-a year forecast in late October, projected much change in demand in 1986 versus 1985 and 1984. There were some minor variations between the forecasts and the quarterly figures but not enough to amount to anything. (See related tables elsewhere in this section).

For 1986, the government experts calculated total product demand at an average of 15.7 million b/d, up 20,000 b/d over 1985 but down 10,000 b/d from 1984. Gasoline is expected to average 6.76 million b/d, 40,000 b/d under 1985 but 70,000 b/d over 1984. The second and third quarters of 1986 were projected at 6.91 million b/d and 6.93 million b/d which, while interesting, were significantly under the older high water marks well above 7 million b/d.

Distillate fuel oil volume is expected to achieve a minor increase in 1986—less than 1%—to an average of 2.89 million b/d. But as the trend has shown, the increases in recent years have been absorbed by the transportation sector rather than the space-heating distributors.

No Joy in Crude

The inability of the OPEC countries to get their act together has had a depressing effect on crude oil prices. Although they have tried repeatedly to set quotas and price formulas, some members continued to make back door deals at discount prices to the point that some barrels of crude were moving as much as $4 below the so-called official levels.

Saudi Arabia said in October that it was going to increase its output at least 1 million b/d to teach some of the discounters a lesson. Saudi oil production in recent years has dwindled from a high of 8 million b/d to 2 million b/d, which is about half of the quota it has been assigned.

In November, Saudi Oil Minister Ahmed Zaki Yamani said he thought an international price war might develop next spring at which time crude prices could well drop to below $20 bbl. That would be $8 below the official floor for Saudi light crude.

In Kuwait, not long afterwards, the oil minister there mentioned $15 bbl. as a possibility.

But while some of the Mideast OPEC members were issuing such veiled threats of price-cutting, other OPEC members such as Venezuela were less pessimistic.

Jack Tarbes, president of Lagoven, a Venezuelan oil company, told the Society of Independent Gasoline Marketers of America (SIGMA) in San Francisco in mid-November that he believes "essentially the present conditions" of crude oil prices will remain "for awhile." Venezuela thinks there could be "a slight reduction" in prices over the next one to two years but not down to the $18 or $20 bbl. level as some are predicting, said Tarbes.

"Yamani is trying to scare his (OPEC) partners," said Exxon's chairman Clifton C. Garvin. Joining him in similar comments were George Keller, chairman of Chevron Corp. and John Bookout, president of Shell Oil Co.

Still another U.S. oil man who foresees OPEC price cuts in the spring is Ashland Oil chairman John R. Hall. He told New York security analysts in early November that "unless non-OPEC oil production is reduced, we could see a surplus of crude oil and a decline in prices in early 1986."

The pessimism seems to be so widespread in the U.S. industry that if international crude oil prices do not slump come spring, it will be something well worth shouting about.

Domestic Problems

Domestically, there's no end to the continuing surge of problems, issues, controversies, challenges and problems that have been turning oil marketing upside down and inside out in recent years.

Most are carry-overs from 1985 but the explosiveness is more pronounced.

Leaded gasoline, for example, officially reached a new floor of 0.1 gram/gal. of lead on Jan. 1. There is much talk that leaded gasoline will be phased out entirely by Jan. 1, 1987, especially since leaded gasoline represents only about 35% of the volume currently being sold. The forecast is that this will decline to about 25% by next Dec. 31.

But that will not be achieved without a knock-down, drag-out fight by agricultural, trucking and marine interests—all of which contend that leaded product is essential for the tractors, the trucks and the boats that have millions of users and supporters. About 30% of the passenger cars are pre-1975 vehicles and require leaded gasoline too.

Environmental Protection Agency is said to be working with as many as eight manufacturers to make a lead additive available but whether this will solve the problem is yet to be determined. The farm group has Congress almost convinced that a delaying action until 1988 is essential until such things as this are resolved.

But with leaded volume declining, new problems are arising for oil marketers who are beginning to wonder about the economic justification of retail pumps, tanks and other facilities. There are others who note that the legal difference between leaded and unleaded gasoline, as of Jan. 1, was only 1/20 gram/gal., hardly enough to get excited about. They pointed out that leaded gasoline is now down to

What marketers can anticipate:

- ***Supplies: Plentiful but low inventories pose problems***
- ***Demand: Flat with little change from last year***
- ***Prices: Generally soft for gasoline and distillates***
- ***Crude: Spring-summer price cuts are projected***
- ***Service stations: 6,500 more have closed shop***
- ***Critical issues: Stage II—canisters vs. hoses; leaded gasoline—is the end in sight?; insurance nightmares—situation worsens in '86***

"A lot of marketers may be looking at unleaded as the only way to go."

0.1 gram/gal. and that unleaded gasoline can contain as much as 0.05 gram/gal. That equates out to 1/20 gram/gal. of lead. The big difference is that the leaded gasoline is a deliberate additive while the unleaded gasoline is a tolerance factor in recognition of unintended or accidental mixtures with leaded fuels in tanks and trucks.

"In hard, round numbers, however, the difference is insignificant economically and otherwise," said one industry expert. "A lot of marketers may be looking at unleaded only as a way to go."

Not to be forgotten about, however, is the fact that the abrupt reduction in the lead content of gasoline is precipitating some serious octane number problems. Refiners estimate that the phasedown cost them about five octane numbers which now have to be made up from other sources, either more sophisticated refining processes or enhancers. This led to a scramble of sorts in the waning months of 1985 [*NPN*—Nov. '85, p44] which will become more pronounced in the second and third quarters of this year as refiners use up their "lead banks" and begin to implement the alternatives they have available.

The higher cost of manufacturing the leaded gasoline is expected to narrow the price gap between it and unleaded regular, slowing down or eliminating entirely the misfueling that has been a persistent headache for government officials. Recent studies indicated that as many as 16% of the nation's motorists were illegally buying the lower-cost leaded gasoline to take advantage of the price spread.

Nevertheless, it's an industry issue over which many battles will be fought this year and possibly next. The farm bloc has a lot of clout in Congress and so does the trucking industry.

Still another noisy confrontation in 1986 will be that between the oil and automotive industries on the matter of Stage II vapor recovery programs. Environmental Protection Agency has been postponing a decision on the issue of onboard canisters and/or service station hoses for months as it tilted first in one direction then the other. The infighting thus far has been fierce.

The last word was that EPA generally favored the on-board canister route, which would mean that the automotive industry would have to find room in the engine area for the absorbent equipment. But there was some speculation that EPA might find a bit of both programs accept-

Tax Reform, Superfund Issues Still Confront Wary Congress

Faced with growing concern over the federal budget deficit and a tax revision plan which at times appeared doomed to failure, the speculation on Capitol Hill as 1985 drew to a close was that Congress may be pressured into a tax increase this year.

One revenue-raiser which was quietly being discussed at this writing was the value added tax. Under the VAT, the value of goods and services are taxed at each level of distribution. Analysts say a 1% VAT could raise more than $10 billion a year, and that's even if food and housing expenditures are exempted.

VATs are used widely in European countries, but U.S. lawmakers have thus far shied away from the tax. Several VAT-like proposals surfaced at the end of 1985. At press time, both the full Senate and the House Ways and Means Committee has passed a "gross receipts tax" to pay for an expanded Superfund toxic waste cleanup program. The House version calls for businesses with yearly revenue of at least $10 million to pay $8 in taxes for every $10,000 worth of goods. The Senate bill targets businesses with over $5 million in annual receipts.

A second VAT-like plan came recently from Sen. William Roth Jr. (R-Del.), whose "Business Transfer Tax" (BTT) would force businesses to pay a 10% tax on gross sales minus nonlabor expenses. Roth cushioned the proposal by making it "revenue neutral," meaning that all the proceeds from the BTT would be returned in the form of lower individual tax rates and more favorable depreciation schedules for business.

The concept of revenue neutrality—the hallmark of President Reagan's tax reform plan—has lost some of its luster as lawmakers watched the federal debt grow to more than $200 billion a year. If deficits continue to soar, Congress could easily consider enacting the BTT and earmark all the money into a deficit-reduction kitty.

Meanwhile, it was difficult to predict the eventual outcome of the much ballyhooed tax reform effort. Ditto for Superfund, where marketers were lobbying for reasonable regulation of leaking underground storage tanks and a liability cap on tank insurance.

At press time, the House had taken up the issue of tax reform, while Superfund was still being debated at various committee levels in Congress. The House Ways and Means Committee dealt the oil and gas industry a blow in late-November when it voted to raise industry-wide taxes by $4 billion over the next five years. But it approved continuation of two key industry tax provisions—percentage depletion allowance for stripper wells owned by independent drillers and intangible drilling costs.

The American Petroleum Institute called the Ways and Means Committee plan "bad for employment, bad for industry in general, and bad for the oil industry in particular." Business taxes will rise an estimated $138 billion over five years under the plan, the API claimed.

The ethanol industry got a boost from the committee when lawmakers voted to retain ethanol's 6¢ gal. federal tax break through 1992. President Reagan had proposed immediate elimination of the ethanol write-off in the tax reform package sent to Congress last May.

The full House was expected to spend much of December debating the tax reform plan presented by the Ways and Means Committee. The Senate will begin initial deliberations on tax revision this month.

The fate of Superfund, and how it will emerge from the various committees which were considering the legislation at press time, was equally murky. The most controversial aspect of the plan was the proposed hefty "gross receipts tax" on business to pay for the program. President Reagan had threatened to veto the bill if the new tax is included.

One final note: if there's a tax hike, look for it to come early in the year. That's because the entire House of Representatives is up for reelection in November, along with 34 Senate seats (22 of whom are Republicans).

Traditionally, the party which controls the White House during mid-year elections suffers sizable losses. If that scenario holds true, Democrats will expand on an already healthy lead in the House, and will challenge for control of the Senate, where Republicans currently hold a 53-47 edge. *—Dennis Wharton*

Another noisy confrontation: oil and automotive on Stage II vapor recovery.

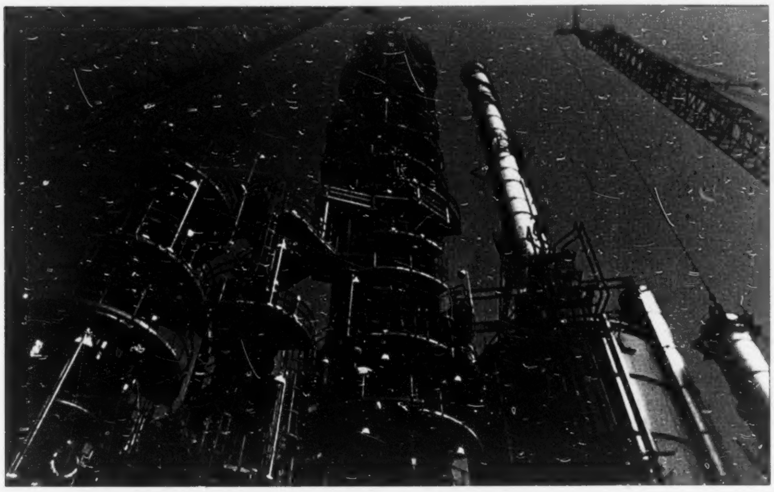
IPAA '86 Forecast: Not Much Change Ahead

(000 b/d except closing stocks)

DEMAND	**1st Q**	**2nd Q**	**3rd Q**	**4th Q**	**Est. '86**	**Est. '85**	**% Chng.**
Domestic Product Demand:							
Motor Gasoline	6,497	6,981	6,990	6,778	6,813	6,812	—
Aviation Fuels	1,203	1,208	1,275	1,258	1,236	1,216	1.6
Middle Distillates	3,452	2,787	2,698	3,069	3,000	2,979	—
Residual Fuel Oil	1,322	1,112	1,096	1,166	1,173	1,203	(2.5)
Liquefied Gases	1,802	1,398	1,459	1,681	1,584	1,582	—
Other Products	1,629	2,062	2,218	1,878	1,948	1,916	1.7
Total	15,905	15,548	15,736	15,830	15,754	15,708	—
Exports	732	712	698	729	718	733	(2.0)
TOTAL DEMAND	**16,637**	**16,260**	**16,434**	**16,559**	**16,472**	**16,441**	—
SUPPLY							
Domestic Production:							
Crude Oil	8,907	8,925	8,919	8,907	8,915	8,931	—
Natural Gas Liquids	1,628	1,604	1,615	1,627	1,618	1,624	—
Total Production	**10,535**	**10,529**	**10,534**	**10,534**	**10,533**	**10,555**	—
Imports:							
Crude Oil	2,973	3,323	3,318	3,299	3,229	3,031	6.5
Motor Gasoline	408	491	452	418	442	431	2.6
Aviation Fuels	50	46	51	49	49	41	19.5
Middle Distillates	288	221	217	290	254	211	20.4
Residual Fuel Oil	562	469	486	538	514	507	1.4
Liquefied Gases	244	163	184	226	204	203	—
Other Products	340	464	477	431	429	434	(1.2)
Total Imports	4,865	5,177	5,185	5,251	5,121	4,858	5.4
Other Supply	754	879	831	851	829	830	—
TOTAL SUPPLY	**16,154**	**16,585**	**16,550**	**16,636**	**16,483**	**16,243**	**1.5**
INVENTORIES							
Closing Stocks (000,000 bbl.):							
Motor Gasoline	225.5	221.4	218.8	224.9	224.9	231.9	(3.0)
Aviation Fuels	45.4	44.6	44.6	43.7	43.7	43.4	—
Middle Distillates	104.4	115.0	130.4	144.7	144.7	139.4	3.8
Residual Fuel Oil	41.8	41.1	41.7	44.2	44.2	43.2	2.3
Liquefied Gases	80.9	94.7	105.1	97.2	97.2	98.1	—
Other Products	55.3	55.8	50.0	48.7	48.7	48.8	—
Total Products	553.3	572.6	590.6	603.4	603.4	604.8	—
Unfinished Oils	106.6	110.3	105.4	100.5	100.5	98.9	1.6
Natural Gas Liquids	7.3	7.7	8.0	7.6	7.6	7.6	—
Crude Oil	321.5	327.7	325.0	324.6	324.6	320.9	1.1
TOTAL INVENTORIES	**988.7**	**1,018.3**	**1,029.0**	**1,036.1**	**1,036.1**	**1,032.2**	—
Crude Runs To Stills:	**11,853**	**12,223**	**12,259**	**12,226**	**12,144**	**12,036**	—

Source: Independent Petroleum Assn. of America, Supply and Demand Committee Forecast, October, 1985.

. . . the question of liability and pollution insurance has become nightmarish.



We'll see more imported oil products in 1986, experts say.

able—the canister route and the service station hoses because it would take either or both several years to reach the air quality levels it wants to achieve. Some states, New Jersey and Missouri especially, are running out of time and state and regional officials are pressing for action. New Jersey's legislature recently approved a resolution that has been signed by the governor expressing support for the on-board canister route in preference to the service station program.

UST and Insurance

EPA is also faced with some serious problems in underground storage tanks and the proliferation of state programs to cope with them. The great nose count of tanks is now underway to determine the exact scope of the problem and the ownership of the tanks. Registration is being required. Some solace has been found in an American Petroleum Institute evaluation of Florida data, however, which seems to indicate that the cost factors may not be as high as expected.

It will take another year or two for this problem to shake down completely.

The Insurance Nightmare

Meanwhile, the question of liability and pollution insurance has become nightmarish for marketers. Liability policy costs are tripling and quadrupling and many underwriters are simply withdrawing from the business. "Let's just say that 1986 will probably be the worst year yet for marketers and insurance policies," said one industry expert. (See related story on Page 25.)

The number of companies writing pollution insurance also tightened up in late 1985. Where once there were 15 to 20 companies in the business, now there are only two or three. Reliance Insurance Co., Philadelphia, Pa., announced in November that it is phasing out and The Oil Men's Insurance Program announced that it will accept no new business in 1986

The Federal Forecast for Supplies and Prices

	By the Year			
	History		Projections	
	1983	**1984**	**1985**	**1986**
Demand (million b/d)				
Motor Gasoline (total)	6.62	6.69	6.80	6.76
Leaded	3.65	2.78	2.38	1.92
Unleaded	2.97	3.99	4.41	4.84
Distillate Fuel Oil	2.69	2.84	2.88	2.89
Residual Fuel Oil	1.42	1.37	1.20	1.15
Other Products	4.50	3.64	3.64	3.73
Total U.S.	**15.23**	**15.73**	**15.70**	**15.72**
Prices (per gal.)*				
Motor Gasoline**	$1.22	$1.20	$1.19	$1.15
No. 2 Diesel	—	1.15	1.16	1.18
No. 2 Heating Oil				
Wholesale	.82	.83	.78	.76
Retail	1.08	1.09	1.04	1.04
Residual***	.65	.69	.62	.56

*All prices include taxes except No. 2 heating oil. **Average for all grades and services. ***Average for all grades of sulfur.

. . . the (service station) slump will continue in 1986, but at a slower pace.

except for five states where it has new programs underway. OMI said its phenomenal growth in 1985—from $3 million in sales in 1984 to $20 million by last month—was the prime reason it had to restrict itself for the time being to the marketers and associations which have supported it right along.

The Planning Corp., Vienna, Va., says it is continuing to write pollution policies but that the prices will be up somewhat in 1986—about $400 per $1 million per station. That's about double what it was only a year or so ago.

Petroleum Marketers Assn. of America, during its recent Nashville, Tenn., meeting, took a look at several proposals suggesting the possibility of setting up or endorsing some sort of an industry-wide insurance program for jobbers. But it ran into stiff opposition from many state executives who depend on their own programs for substantial chunks of their incomes and budgets. Action was deferred but the likelihood of anything concrete emerging under PMAA auspices is considered remote.

Service Station Outlook: Down in '85, Worse in '86

Not helping matters at all is the latest service station population forecast by the U.S. Commerce Department's Bureau of Industrial Economics. Last year, the Bureau had suggested that perhaps the long slump was near an end, that the decline to be expected in 1985 would only be around 2,500 stations. That would have been the smallest minus sign in years.

It didn't happen that way, however. At year's end, the Bureau revised its forecast drastically and said the continuing slump had reduced the 1985 population to 124,600 service stations as of Dec. 31. Thus, instead of being down only 2,500 stations from 1984, the marketing industry lost another 6,500 stations in 1985.

The Bureau predicted that the slump would continue in 1986 but at a slower pace. By the end of this year, the population is expected to be around 121,000. Since the peak year was 1972, when the

Service Stations

	1986	1985	1984
Population	121,000	124,600	132,080
Sales (Billions)	$102,502	$100,492	$100,970
(Jan. 1 '85 forecast, for comparison)			
Population	—	130,000	132,020
Sales	—	$111,332	$107,040

The service station slump continues in 1986, but the pace could be slower.

Quarterly Averages

1985				1986			
1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
6.49	6.98	6.96	6.74	6.40	6.91	6.93	6.79
2.41	2.56	2.38	2.20	1.98	2.03	1.91	1.75
4.09	4.42	4.59	4.54	4.42	4.89	5.02	5.04
3.28	2.65	2.58	3.02	3.07	2.80	2.59	3.09
1.36	1.15	1.08	1.23	1.43	1.05	.97	1.14
3.52	3.51	3.78	3.75	3.68	3.55	3.87	3.81
15.81	**15.45**	**15.61**	**15.92**	**15.78**	**15.49**	**15.57**	**16.03**
$1.14	$1.22	$1.22	$1.18	$1.14	$1.15	$1.17	$1.14
1.14	1.15	1.17	1.19	1.19	1.19	1.18	1.17
.80	.79	.77	.78	.78	.77	.75	.75
1.05	1.03	1.02	1.06	1.08	1.04	1.02	1.03
.68	.60	.59	.61	.58	.56	.55	.55

Source: Energy Information Administration, Short-Term Energy Forecast, November, 1985

. . . retrenchment or restructuring moves are bound to continue.

population exceeded 226,000 stations, this would mean the marketing industry has seen more than 105,000 outlets vanish from the scene in little more than a decade.

Lower prices and shrinking demand also put a damper on the economics of the gasoline retailers.

The Bureau had projected that 130,000 service stations would generate $107.0 billion worth of business in 1985. But when it dropped this total to 124,600, it also revised the dollar total downward too, saying it now believes it will be around $100.5 billion for '85.

The Bureau says the 1986 total won't be much larger—only $102.5 billion.

On page 33 are some of the Bureau's principal service station projections which will be published later this month in its annual "Franchising in the Economy."

The decline in the service station population does not mean that the marketing industry is restricting or downgrading its ability to meet the demands of motorists.

Many times, several stations in an area are replaced with a much larger facility capable of pumping 100,000 gal. to 500,000 gal. of gasoline monthly. An example of the extreme is a Phoenix, Ariz., marketer who built his station volume to 1 million gal. month [*NPN*—Nov. '85, p61].

Mergers and Acquisitions—Still Front-burner Items for '86

Although the mega-buck merger fever seemed to have quieted down in the last half of 1985, in the wake of the defeat that Unocal Inc. handed Texan T. Boone Pickens, there's no assurance that this has run its course in the oil industry.

The New York Times noted recently that Wall Street brokerage houses and others in the financial area send weekly lists of likely take-over prospects to big investors whose only interest is money, not corporate growth or operations.

The lists pinpoint companies whose stock is undervalued or whose parts are worth more than the whole in a take-over and dismantling process. A number of oil companies fit in this category and it would not be the least bit surprising to see one or more fall prey to the corporate raiders in 1986.

Wall Street had predicted that several more second-tier oil companies would be attacked in 1985 but since this did not happen the feeling seems to be that it's only a lull, not an abandonment.

The Times' article mentioned that billions of dollars are readily available to the frontline investors, that the Street is full of arbitragers eager to jump in too for short-term profits, and that the tens of millions of dollars in fees that can be earned by brokerage houses is an all-consuming lure they cannot resist.

Even the stunning $10 billion verdict in the Pennzoil-Texaco suit in November was not considered likely to slow down or hinder future acquisitions and take-overs. "All we learned from that," one broker was quoted as saying, "was that you make sure you have everybody's signature on the agreement before you make any announcements. That's all."

More Restructuring

Whether or not there is more merger activity among the industry's larger companies, retrenchment or restructuring moves are bound to continue, oil company executives and others agree. They see the oil companies continuing a pattern of selling off marginal assets and withdrawing from markets where they may have relatively weak positions.

Consolidations, sellouts and so forth are likely to continue among jobbers, most supplier company and association executives predict. In addition, there will continue to be considerable diversification by jobbers.

But none of this will be much different from the past year or two, most sources agree. They think 1986 will be pretty much a repeat of 1985.

Private Branders, Young to Get Larger PMAA Role

New president Tom Potter, Sr., is reaching out in '86 to give stronger voices in Petroleum Marketer Assn. of America affairs to private branders, C-store operators and the younger folks who'll be the industry leaders of tomorrow.

Potter, who succeeded Dave Robinson, Garden City, Kan., on Jan. 1 as the association's chief executive, restructured the Motor Fuels Committee so that it could take aboard two task forces—one dedicated to private brand gasoline marketers and the other to convenience store operators.

Potter also established an Ad Hoc Young Petroleum Marketers Committee —"not the traditional second generation that we've been used to but the younger people, the ones in their thirties that are just coming in now and will be the ones that take over on down the road."

At the same time, the new PMAA president stoutly defended the association's activities in behalf of its oil heat members, noting that there were "some rumbles out there" but that they weren't justified by the record and the results that have been produced to date.

Potter, president of Tom Potter Oil Co., Morehead City, N.C., said the establishment of the Private Brand Task Force within the Motor Fuel Committee meant the elimination of the Ad Hoc Committee on Private Brands that had been in existence the past several years.

"What we found," he said, "was that many private brand members were skipping the Ad Hoc Committee in favor of the Motor Fuel Committee, sometimes because they had dual interests or for other reasons. The private brand group, while not as large as the brand group, is a segment with needs to be served."

Potter said he hopes that the C-store Task Force will emerge eventually as a standing committee in its own right. "A substantial percentage of our marketers are engaged in C-stores and they have problems that need to be addressed," he said.

Referring to his Young Petroleum Marketers Committee, Potter said that was a much better name than the "usual second generation marketer we've always talked about. What we mean here are the young people."

Potter said he thought much of the "rumblings" in the field about fuel oil were "media generated."

"What we have to understand from the outset," he said, "is that PMAA can never be all things to all people. Our primary interests are concentrated on legislative and regulatory activities.

"We have expended considerable effort on the imports fee battle, which is very important to fuel oil. We've also, for example, worked steadily on underground storage tanks and were successful in getting heating oil tanks exempted from the federal controls."

February 1986

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Profile of Circle K, No. 2 C-store Chain
Auto Care Programs on Rise Again
Why Jobber Likes Small Towns for Modernization

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The Beat Goes On

The Multi-Million Dollar Image Race

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CHEVRON
FOOD

While they are still culling out marginal units, the multi-million dollar race to improve their retail image continues among gasoline marketers. But, it's an expensive race, up to $200,000 each for a "face lift." **Page 38**

SHELL
CAPPON OIL CO

Image, mini-marts, 24-hour service and a jobber incentive program have helped make Cappon Oil Co. of Hastings, Mich. a 16 million gal./year business in towns no larger than 6,500 residents. **Page 42**

America's No. 2 convenience store company, the Circle K Corp., plays second fiddle to no one. Over the past few years, it has shown that just because it's about half the size of giant Southland Corp., that doesn't mean it's half as good at the business of selling convenience. **Page 48**

• TRENDS

No Escape for Oil Industry: Import Fee or Excise Tax?

With talk of deficit reduction now dominating the agenda in Washington, the oil industry will be on the defensive in 1986 as it tries to escape Congressional imposition of an import fee or a hike in the federal gasoline excise tax.

At press time, OPEC's collapse had given proponents of higher oil taxes a new argument. Because crude prices are expected to continue a downward spiral, they argue, consumers will hardly notice the new taxes. Prices will stay about the same, they claim, while the government will be reaping billions to cut the massive $200 billion federal debt.

Sens. Gary Hart (D-Colo.) and David L. Boren (D-Okla.) were expected to renew calls for either a $5 or $10 bbl. tax on imported crude. Key Republicans in the Senate may be persuaded to go along, just as they did last summer when the $5 bbl. tax hike plan surfaced. Only a veto threat from the White House prevented the measure from becoming law [*NPN*—Sept. '85, p16].

In recent weeks, momentum has also gained for a hefty gasoline tax increase. One of the gas tax advocates is Martin Feldstein, President Reagan's former chairman of the Council of Economic Advisers, who urged Reagan and Congress to "jump at this new opportunity to make a significant dent in the future budget deficit."

Feldstein's plea came in a recent opinion column in the Washington Post, where he claimed a 15¢ gal. increase in the gasoline tax would reap $15 billion a year for the federal treasury. A motorist driving 100,000 miles annually in a 20 mpg car would pay an extra $75 a year, Feldstein said.

Feldstein favors the gas tax hike over the oil import fee because he said the latter would discriminate more against the Northeast and other regions of the country which rely more heavily on oil for heating and electricity.

A possible tax increase is clearly going to be a top priority on Capitol Hill this year. Ken Doyle, executive director of the Society of Independent Gasoline Marketers of America, says it may boil down to "how we're taxed, not whether we're taxed."

Congress forced the issue late last year when it passed the Gramm-Rudman-Hollings bill, named after the bill's sponsors, Sens. Phil Gramm (R-Texas), Warren Rudman (R-N.H.) and Ernest Hollings (D-S.C.). The legislation mandates $11.7 billion in budget cuts beginning March 1, followed by a series of annual deficit reduction targets until the deficit reaches zero in 1991.

Opponents of Gramm-Rudman-Hollings bill were challenging the legislation in court at press time. If it survives the court test, Congress and President Reagan are required to come up with a plan to cut the deficit. If the two sides are unable to do so, automatic across-the-board cuts in federal spending would occur.

Many Washington observers think the spending cuts will be accompanied by a tax hike, which they say will probably occur by at least October 1, the day fiscal 1987 begins. Under Gramm-Rudman-Hollings, Congress and the White House must keep the federal debt at no more than $144 billion by the end of fiscal 1987.

As Congress was preparing to return to Washington in January, the tax hike debate focused on energy taxes (either an oil import fee or gas tax hike) or some form of value added tax on business [*NPN*—Jan. '86, p30], or a combination of both.

SIGMA's Doyle says independent marketers are "100% against petroleum taxes," but he adds that it would be "short-sighted" not to see some form of tax increase on the horizon. If the choice is between the oil import fee or the gas tax, SIGMA prefers the gas tax because it is "more equitable," Doyle says.

Doyle fears that an oil import fee could drive SIGMA members out of business. "If my members can't buy from off-shore, there's no incentive for the majors to sell to us," he says.

The Petroleum Marketers Assn. of America also opposes both the proposed oil import fee and the gas tax hike. If Congress enacts a petroleum tax, however, PMAA favors a general BTU tax on items such as natural gas and coal as well, according to executive vice president Phil Chisholm.

President Reagan's general opposition to new taxes is perhaps the only reason for optimism among marketers. But even Reagan may finally relent to deficit-reduction pressures this year. It wouldn't be the first tax hike during his administration. In 1982, for example, Congress received White House blessings to raise the federal gasoline excise tax from 4 to 9¢ gal., with all proceeds targeted for road construction, repair and improved mass transit.

Dennis Wharton

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

OCTOBER	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.201	$1.123	$1.207	$1.339
Regions:				
Northeast	1.233	1.148	1.226	1.350
North Central	1.216	1.152	1.230	1.363
South	1.182	1.100	1.187	1.323
West	1.160	1.102	1.184	1.335

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	1/3/86	1/4/85
Gasoline (total)	227,760	241,359
Gasoline (Unleaded)*	110,798	110,802
Jet Kerosine	33,777	37,279
Distillates	143,895	158,919
Residual	47,635	54,794

**Included in gasoline total.*

Source: American Petroleum Institute.

NPN

NATIONAL PETROLEUM NEWS FEBRUARY 1986

Marketing Capital Investments Could Reach $4 Billion by 1987

Oil marketing is well on its way to its first $4 billion year in capital investments in history.

It could happen this year but the likelihood is that 1987 will see the breakthrough—or be so close to it the deficit would be insignificant.

By way of contrast, a decade ago oil marketing was getting a measly $632 million in capital improvements. This, of course, was in the midst of the traumas that followed the oil embargo and the confused profusion of federal regulations of the mid '70s.

The good news comes from McGraw-Hill, Inc.'s Economics Department, which released its 32nd Annual Survey of Preliminary Plans for New Plants and Equipment (1985-87) at the turn of the year.

The company withheld its 31st Annual Survey from general distribution in 1984 so the new survey represents the first public updating of this material in two years.

The rising tide of marketing investments came as the industry as a whole cut back on capital spending as a result of profit, tax and cash-flow problems.

The McGraw-Hill economists said oil marketing expenditures penetrated the $3 billion level for the first time in 1984. They were estimated to have increased almost 20% in 1985, and were projected to increase 8% in 1986 and one-half of 1% in 1987.

That would take the marketing investments to $3.67 billion in 1985, to $3.95 billion in 1986 and $3.97 billion in 1987.

All these tens of millions of dollars are being poured into new and updated service stations, storage facilities, transports, and the whole new era of computerization and point-of-sale electronic facilities. They also reflect the higher cost of real estate and the fact that many modern units cost two, three and four million dollars versus the old concepts of several hundred thousand dollars each.

They also tell, in their own way, the growing intensity of competition for shares of the shrinking marketplaces and gallonage. New surveys, for example, indicate the service station world is now down to about 120,000 units and the "universe" is well under 200,000. The 120,000 category is that of so-called "true" service stations which get more than half of their sales dollars from gasoline while the "universe" includes convenience stores and others where gasoline is a secondary commodity.

TEXACO
Unleaded
1.17
1.25
WASH
2.00
Self Serve
Products You Can Trust
Food Mart
Car Wash

Competition for market shares could push oil companies to invest an estimated $3.95 billion in marketing this year.

(Continued on following page.)

Highway Users Urge End to Blend Subsidy

The Highway Users Federation is calling for an end to gasohol tax subsidies, claiming state and federal highway programs will lose a total of $561 million in 1985 through tax breaks.

Using projected figures for gasohol sales through the end of 1985, the Federation says Virginia stands to lose $21 million with an 8¢/gal. gasohol exemption on its motor fuel tax. Likewise, it estimates Florida will lose $19 million and Ohio $17 million, while 17 other states will lose between $200,000 and $16.3 million in state highway revenue.

On the national level, the Federation says the Federal Highway Trust Fund will lose $388 million because of the 6¢/gal. federal subsidy on gasohol at the pump. That figure could grow to $600 million by 1988 if present subsidies and sales continue, it says.

"Motorists using gasohol place the same amount of wear and tear on roads and bridges as do gasoline users, yet they pay far less in highway user taxes," says Federation president John Clements.

Furthermore, the Highway Users Federation says gasohol tax subsidies are no longer needed to fulfill their initial intended purpose: to support a "fledgling gasohol industry," reduce energy imports and encourage domestic energy diversification.

The Environmental Protection Agency's directive to reduce lead content in gasoline has spurred the gasohol industry into the sale of an estimated 6 billion gal./year in 1985, the Federation says. It adds, sales are expected to grow to 10 billion gal./year by 1988.

The Federation also claims "one domestic producer" and imports (especially from Brazil and Spain) currently total more than half of the U.S. gasohol market.

Marketing Getting Record-Breaking Investments

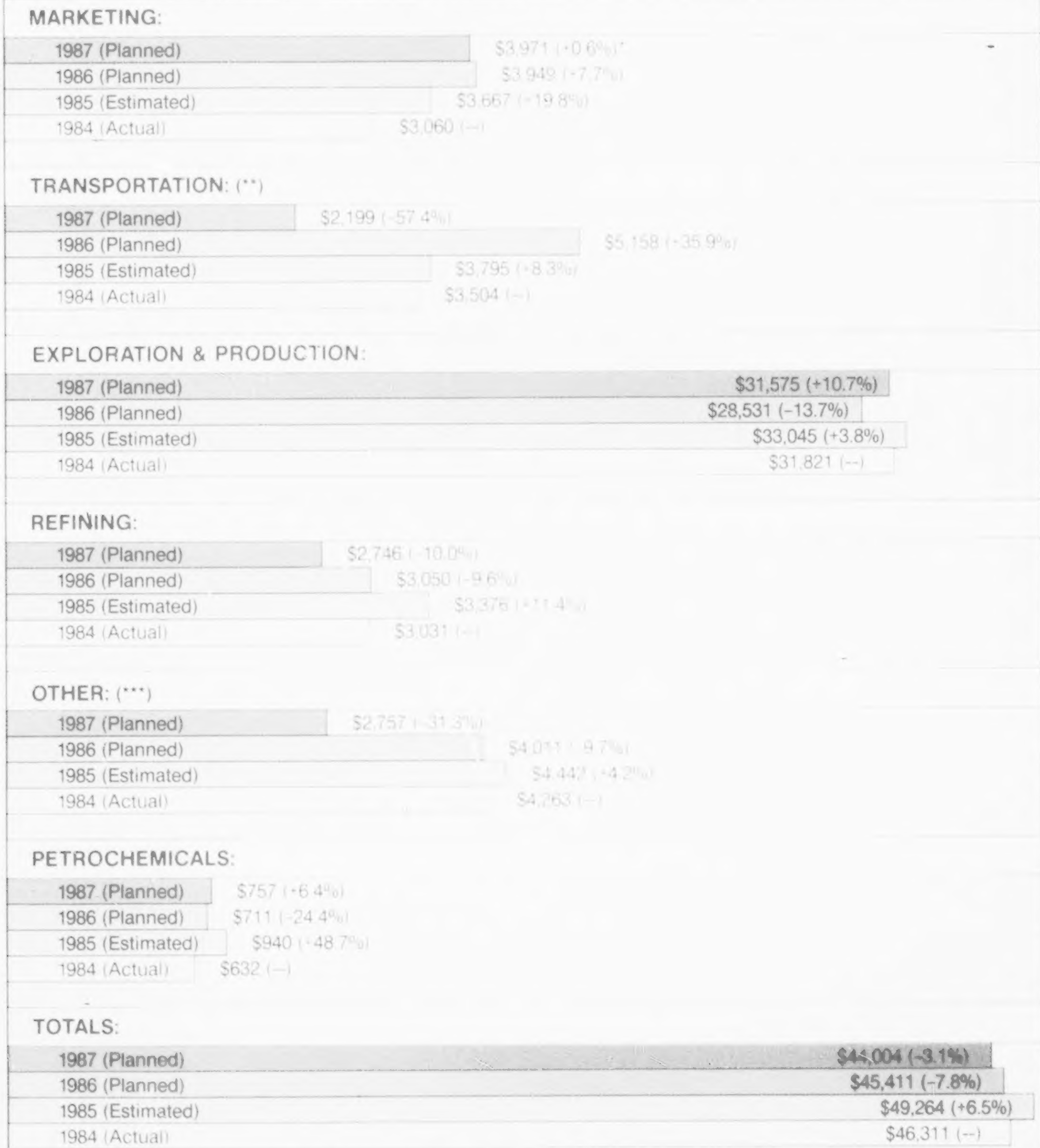
(Continued from previous page)

The McGraw-Hill survey anticipates that capital spending for the industry as a whole was estimated at $49.3 billion in 1985, a record high, but was targeted to decline 7.8% in 1986 to $45.4 billion and another 3.1% in 1987 to $44.0 billion.

All of the survey projections could be affected in 1986, however, by the tax reform bills in Congress, by the growth or nongrowth of the economy itself, and by the fluctuation of international crude prices as exporters fight for market shares.

McGraw-Hill's survey was made last September and October, and generally involves about 800 to 1,000 of the nation's top businesses, including oil's. **NPN**

Billions Targeted for Oil Marketing Expansion (in Millions of Dollars)



*Figures in parentheses indicate percentage of change from previous year's total. **Includes oil but not gas pipelines. ***Includes coal mining by oil companies.

Source: McGraw-Hill Economics Department, Dec. 1985, 32nd Annual Survey of Preliminary Plans for New Plants & Equipment, 1985-87.

Variety of Market Statistics Tends to Reach Same Conclusion

The Energy Information Administration says the oil marketing statistics collected and distributed by key government, industry and private sources seem to be in general agreement even though their data collection activities and concepts vary considerably.

The agency reviewed statistics collected by its own offices, American Petroleum Institute, *Oil & Gas Journal* magazine, Federal Highway Administration and the U.S. Customs Office in various categories for the six-year period from 1979 through 1984.

There were some disagreements, particularly in 1979 and 1980. Most variances were under 2%, but the widest were two government discrepancies in residual fuel oil in 1979 and 1980.

The agency made this observation: "In general, discrepancies between independent comparative estimates are due largely to differences inherent in the collection data activities, namely, sample versus census, voluntary versus mandatory reporting, conceptual differences, and the data collection and estimation methods used."

The agency uses its own data in the Petroleum Supply Annual as the basic reference point. All others were contrasted against these figures, including its own Petroleum Marketing Division reports.

Here are some of the key comparisons, all on a percentage basis.

Motor Gasoline Supplied for Domestic Use

Year	EIA Petro. Mktg. Div.	Amer. Petro. Inst.	Fed. High. Admin.
1984	4.2%	0.4%	2.0%
1983	3.2	0.1	0.7
1982	2.7	(0.5)	1.1
1981	1.1	(1.0)	1.7
1980	6.9	4.8	3.2
1979	7.0	0.4	3.2

To amplify the chart above: In the year 1984, EIA's statistics were 4.2% above the reference estimate; API's were within four-tenths of a point; and FHA's were 2% above.

Distillate Fuel Oil (Including Kerosine) Supplied for Domestic Use

Year	EIA Petro. Mktg. Div.	Amer. Petro. Inst.
1984	6.6%	0.9%
1983	1.7	(0.1)
1982	3.2	1.0
1981	(1.1)	2.8
1980	6.7	3.1
1979	5.3	1.1

Residual Fuel Oil Supplied for Domestic Use

Year	EIA Petro. Mktg. Div.	Amer. Petro. Inst.
1984	(3.4)	(0.6)
1983	(1.7)	1.2
1982	(6.9)	(0.8)
1981	(5.1)	2.4
1980	(11.2)	2.1
1979	(23.4)	1.2

Crude Oil Imports

Year	Amer. Petro. Inst.	U.S. Census Customs
1984	3.9%	(3.7%)
1983	1.4	(1.3)
1982	0.2	2.1
1981	0.7	1.9
1980	(0.5)	0.8
1979	(1.4)	1.5

Crude Oil Production (Including Lease Condensate)

Year	Amer. Petro. Inst.	Oil & Gas Jnl.	EIA Resers. Div.
1984	(1.6%)	(2.4%)	(1.0%)
1983	0.1	(0.3)	0.2
1982	0.2	0.0	(1.6)
1981	0.4	0.2	(0.6)
1980	0.4	0.0	(0.4)
1979	0.3	1.5	(0.6)

The complete tables and summaries are available in EIA's *Petroleum Supply Monthly*—September, published in November, 1985.

New Visa Card Offered to RV Club

Without striking a single deal with oil marketers, a Nevada bank has started a credit card program that gives thousands of people a 2% discount on all brands of gasoline.

The Valley Bank of Nevada has introduced a new Visa card that offers the one million members of the Good Sam Club, a recreational vehicle organization, not only low interest rates, but a 2% discount on all gasoline they buy.

The bank handles the entire operation, with customers merely keeping their gasoline receipts and the bank itself giving the discount. Along with the discounts are low interest rates, as much as 6.5 percentage points below rates on other Visa cards while maintaining all advantages of convenience.

Since September of last year, 30,000 applications for the card were sent in, says a spokesman for the project.

Marketing is the big motive behind the offer, says the spokesman. The Good Sam Club has a million members, and because of the defined market, no advertising campaigns were needed. Brochures for the card, officially called the Valley Bank Good Sam Bonus Bankcard, were simply mailed with other Good Sam materials. The card itself incorporates the Good Sam logo of a smiling face with a halo. **NPN**

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March 1986

$4.50

A Wellhead to Pump Island Price War

POS: Still in a Holding Pattern

How Omaha Jobber Makes Car Washes Pay

NPN

National Petroleum News

cumberland farms
Chevron
CF self serve
cumberland farms

Cumberland's Big Harvest

Buyer's Guide Issue

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cumberland farm

Cumberland Farms, Inc., the nation's third largest C-store chain and soon to be its biggest independent gasoline marketer, is a classic example of the old adage "great oaks from little acorns grow."
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With OPEC pumping an extra 1.5 million to 2 million barrels of oil each day into an already glutted market, gasoline and diesel marketers in late January and early February were getting some of their best price bargains in years. **Page 31**

OP
EASE
AIT
CARWAS
NDANT
SSIST

Car washes can be a profitable investment for a jobber looking to diversify his operations, even more profitable than convenience stores, says Bill Ashley, president of Crest Petroleum Corp. in Omaha.
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• TRENDS

Insurance Industry Cycles At Root of Premium Hikes

Commercial liability insurance premiums took a big jump in 1985 and appear likely to rise even more in 1986. The nature of the insurance business suggests that rates are not likely to begin to soften before 1987.

Property/casualty insurance is a highly cyclical business, with hard rates and soft rates following one another in predictable patterns. With a knowledge of how the liability insurance business works, oil marketers and other individuals and businesses can see when premiums are likely to rise or fall.

Individuals and companies buy their insurance from primary insurance companies, who in turn buy insurance from re-insurers. Both kinds of insurance companies are interested in generating money to put into outside investments.

When interest rates are high and outside investment opportunities are good, primary insurers and re-insurers underwrite insurance aggressively, triggering premium price wars. When interest rates fall and investment opportunities sour, re-insurers withdraw some or all of their capital, causing insurance companies to raise rates and reduce coverage.

These "hard" and "soft" periods have followed one another every three years for the past two or three decades. The trouble with the current hard period, which started in 1985, is that the preceding soft period lasted way too long—six or seven years—and underwriting losses soared to unprecedented levels.

For example, according to the Insurance Information Institute (III), during the previous soft period from 1973 to 1975, underwriting losses of U.S. property/casualty insurance companies fell to $3.6 billion, which was considered a lot at the time. This is the amount of claims paid versus premiums received. It excludes income from outside investments and, therefore, is not to be considered insurance company earnings or losses.

As insurance companies raised premiums and tightened their underwriting requirements beginning in 1976, premium incomes rose and claims fell, so that by 1978, earlier annual losses had turned to gains of $2.5 billion.

Interest rates began rising steeply, from 6.8% (prime: the rate banks offer their best customers) in 1977 to 18.9% in 1981. This created great demand for capital. One of the worst insurance premium price wars of all time followed.

Property/casualty insurers just about broke even on claims in 1979, but began in 1980 and continued through 1985 to lose greater and greater amounts—to a huge $25.2 billion in 1985, III reports. Many insurance companies were selling liability insurance far below cost.

Insurance executives have been criticized from within and without for mismanagement in allowing underwriting losses to deteriorate so badly in the battle to obtain premium dollars for investment purposes. They are also being criticized now for trying to recoup their losses too fast.

Interest rates began falling in 1982 and are still falling. When re-insurance companies saw investment opportunities fading and underwriting losses mounting, many pulled out the rug in January 1985.

The reason liability premium increases are unlikely to break soon is that the insurance industry in 1985 had still not begun to turn around its losses. That's why rates are not expected to soften in 1986. If rates begin to soften in 1987, which some insurance people consider probable, it will be because underwriting losses have been controlled.

Here are some signs that will help tell what's likely to happen to premiums:

While insurance companies are attempting to cut their underwriting losses, premiums will be hard. When losses begin shrinking and eventually turn to gains, re-insurance capital will return and insurers will begin competing again for premium dollars. This will usher in soft prices.

A rise of interest rates will revive outside investments, and insurance companies will begin again to try to attract capital, selling insurance more aggressively.

The turnaround will also be signaled by rising capital reserves of insurers and re-insurers. There is a 3-to-1 ratio between premiums collected and the capital needed to back it. Capital reserves will have to be built up before new insurance can be written and rates reduced.

For oil marketing and other businesses, the key is to manage until insurance rates start falling again. This is predictable if the signs are understood. It would also be prudent to make plans for the next hard period sure to be coming on the following cycle. *—Mark Emond*

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

DECEMBER	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.203	$1.123	$1.208	$1.344
Regions:				
Northeast	1.237	1.151	1.228	1.356
North Central	1.219	1.155	1.232	1.371
South	1.186	1.104	1.189	1.330
West	1.183	1.094	1.189	1.330

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	1/31/86	2/1/85
Gasoline (total)	236,150	233,118
Gasoline (Unleaded)*	117,883	108,629
Jet Kerosine	34 983	35,720
Distillates	137,510	141,813
Residual	48,657	47,635

**Included in gasoline total.*

Source: American Petroleum Institute.

By Mark Emond

WEST

Retail Prices Probably Won't Reflect Drop in Crude—Yet

Tumbling world crude oil prices are causing big changes in the oil industry, but everyone and everything are not affected the same. How will refining and marketing fare, and which companies will get hurt the most? What will the crude price collapse do to West Coast markets, which have already been undergoing wrenching realignments?

Many competitive relationships are being tossed up in the air, and how they settle to the ground may change the balances of the marketplace indefinitely.

First of all, just because crude prices have fallen, even as drastically as they have, doesn't mean product prices will necessarily fall immediately or as much. Each of the major petroleum products, particularly gasoline and distillates, has a competitive life of its own. Whether and how much falling crude prices will affect product prices is rarely a foregone conclusion.

It happens frequently in one area of the country or another that gasoline and distillate prices move in different directions at the same time, even as crude oil prices are rising or falling. Eventually, of course, crude prices do affect product prices, but the timing and degree have to be worked out in the marketplace under the influence of myriad factors.

The notable rule-of-thumb that worked so well under the federal price controls of the 1970s—that a change of $1 bbl. in the price of crude results in a 2.4¢ gal. change in the price of gasoline and distillates—doesn't work predictably in a free market, except over a span of months.

By that time, many things can have happened to obscure the theoretical effects. Furthermore, crude prices have a habit of not staying in one place for long, complicating any attempt to follow changes through to the street.

It may be, for instance, that a sustained $5 bbl. crude price drop would eventually result in a 12¢ gal. fall in product prices, but until and as this happened, substantial maneuvering could be taking place in the marketplace, with profits and losses being experienced unevenly.

Take refining and marketing, for example. Crude price decreases can result in increased refining and marketing margins, as they did last spring. Gasoline prices rose as crude prices fell, providing many companies wider margins. There is a good chance this will happen again, at least on some products and in some areas.

The reason is related to inventory levels. The amount of stocks has a lot to do with how refined product prices react when crude prices break. When prices are falling, marketers would try to sell off their inventories because they would expect to be able to replace them at lower prices. If tanks are full at such a time, markets can be deluged with surplus product, and prices would plunge. But if inventories are low, most marketers have little or nothing to dump.

In January, 1986, when crude prices broke the $20 bbl. barrier for the first time since the extraordinary runup in 1979-80, gasoline stocks were low, on average, giving hope that prices would not drop too badly. On the other hand, distillate stocks were high, immediately triggering price cuts of 3¢-5¢ gal. in some areas, evidently the result of inventory selloff.

U.S. gasoline stocks in mid-January stood at 228 million bbl., off 2.4% from those of January 1985, but off 8% from the average January stocks of the previous three years, the Department of Energy (DOE) reports.

There were regional differences. Gasoline stocks were way down in the Midwest (PAD 2), and very high on the Gulf Coast (PAD 3), compared with the same month a year earlier. Stocks were slightly up on the East Coast (PAD 1), and slightly down on the West Coast (PAD 5) and in the Rocky Mountains (PAD 4).

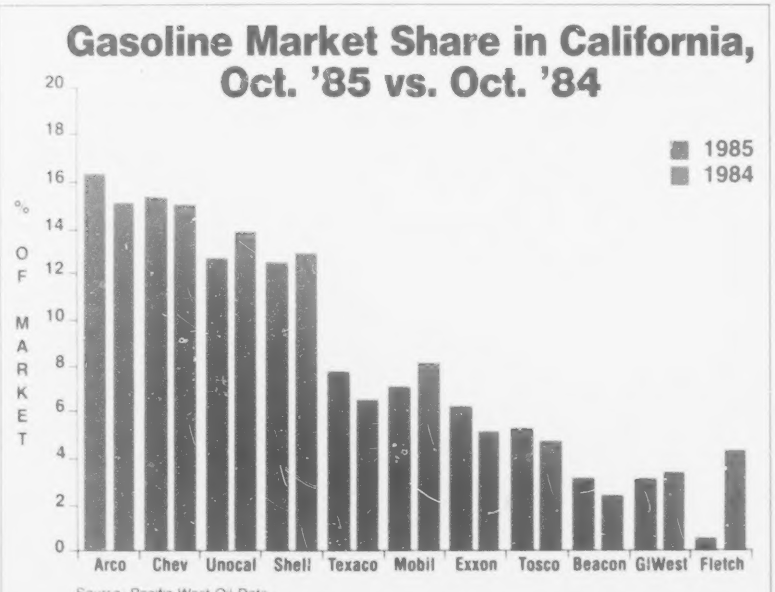
U.S. distillate stocks, on the other hand, stood at 147 million bbl. in mid-January, up 3.5% from January 1985, but up 8.2% from the average January stocks of the previous three years, according to the DOE.

The Gulf Coast was swimming in 30% more distillates than a year earlier, and the West Coast was bountifully supplied with 20% more. The Rocky Mountains were also long with 14% more. East Coast stocks were only 3% longer, but Midwest inventories were down 14%.

These inventory positions should tell a lot about how product prices reacted to plummeting crude prices, and provide insight into what could happen to marketers' margins during this rocky period. Excessive stocks at such times cause product dumping and sharp price-cutting. If stocks are tight, prices have a good chance of remaining firm for a time, providing margin relief.

Because crude prices have been falling and threatening to fall for several months, at least, much of the potential inventory selloff had probably already taken place. If so, refiners and marketers could enjoy significantly higher margins for a few months.

If the crude price war were to fizzle as a result of accommodations made between



Gasoline Market Share in California, Oct. '85 vs. Oct. '84

Source: Pacific West Oil Data

non-OPEC and OPEC producers, and with inventories severely drawn down, the prospect of firmer or higher crude and product prices could set off a buying spree to fill tanks before the price goes up. This would drive up product prices probably much in excess of crude costs—that is, more than 2.4¢ gal. per $1 bbl. increase—and create another opportunity for better margins.

West Coast is now scene of another battle

All of this is a highly volatile setting for what is already taking place in West Coast gasoline markets: namely, a battle for the No. 2 position in market share.

A battle for second place may sound drab, like a race for runnerup—ho hum. But in this case, it has all the excitement of a primary contest, because it involves three of the most formidable major oil companies—Chevron, Shell and Unocal.

Let's face it. Arco has taken over No. 1 with authority, at least for the time being. Falling crude prices could affect that, but not easily. If crude prices fell low enough, long enough, Arco could suffer because its own supply on the Alaska North Slope is expensive. This could put the company at a competitive disadvantage, quite the reverse of the substantial advantage it is considered to have had in the past.

For many years when Chevron was No. 1 and dominant, Shell took over the No. 2 spot as a way of life. Shell may be the most successful runnerup gasoline marketer of all time. But when Arco took over first place, Shell was pushed to third, and eventually to fourth behind Unocal. This is in California, where two-thirds of West Coast gasoline is sold.

The accompanying table and graph show California gasoline market shares in October, 1984, and October, 1985, latest month for which figures were available. Arco and Chevron were tied for first in 1984, according to Pacific West Oil Data, with Unocal third and Shell fourth.

At some distance, Texaco, Mobil, and Exxon are having a tussle of their own. The fifth and sixth spots have changed hands between Texaco and Mobil during the past year. Exxon, a relative latecomer to the West Coast, is still in seventh, but is making consistent headway.

The trade has decided somehow that Shell intends to get back the No. 2 position in California. This means it would have to overtake Chevron and Unocal. Shell and Unocal were bunched together in October 1985, with 12.4% and 12.6%, respectively, so this goal seems attainable. Surpassing Chevron, which had 15.3% of the market, would be another matter.

Until Arco took a lead on greater market share, Chevron had been No. 1 almost forever. Shell has always been a follower. A veteran California marketer recalls:

"To my knowledge Shell has never dropped (prices) first. Shell is a follower. When Chevron drops, others follow, including Shell and Mobil. The market leader is still Chevron. If Chevron drops, Mobil and Shell will drop. This is almost routine. Sometimes Mobil drops first, and then Chevron and Shell follow."

Imagine the surprise, therefore, when on January 8, Shell dropped dealer tankwagon (DTW) 1½¢ gal. This was a shock in the trade for two reasons: (1) Shell moved first, and (2) the amount was greater than the almost universal 1¢ gal. by which DTW is dropped.

"Everybody drops a penny at a time," says the veteran. "Nobody in my memory drops more than that." He believes Shell was, in a manner of speaking, serving notice of its intentions.

In the Northwest, an independent gasoline marketer considers Arco the toughest competitor, no surprise, with Mobil next, "which is kind of unusual." Shell has been quicker to respond, but most other companies have also, he adds.

"The way I see it here," says the jobber, "majors are getting more sensitive about moving. They don't necessarily wait even a whole day to move. It's a matter of hours, Shell or anybody else. If you see one price change, you'll see three or four before you can make a copy of the first one."

GASOLINE MARKET SHARE IN CALIFORNIA

(October 1985 vs. October 1984)

Company	Oct. '85 % Share	'85 Rank	Oct. '84 % Share	'84 Rank
Arco	16.2	1	15.1	1
Chevron	15.3	2	15.1	1
Unocal	12.6	3	13.8	3
Shell	12.4	4	12.9	4
Texaco	7.7	5	6.5	6
Mobil	7.0	6	8.1	5
Exxon	6.2	7	5.1	7
Tosco	5.2	8	4.7	8
Beacon	3.0	9	2.4	11
Golden West	3.0	9	3.3	9
Fletcher	0.5	11	4.3	10

Source: Pacific West Oil Data

Shell's apparent ambition to regain No. 2 and resume its successful way of life on the West Coast, which the company calls "West of the Rockies," augurs greater competition, if that's possible.

What crashing crude prices would do to these emerging new market relationships remains to be seen, but it's practically certain they will do something.

Different effects felt from crude price drop

Different oil companies would be affected differently by lower world crude-oil prices. At $20 bbl. or lower, for example, two international companies, both on the West Coast, and six domestic companies, none on the West Coast, would be least affected, according to Salomon Brothers, New York-based investment banking firm.

The analysis was done by Paul Mlotok, international specialist, and Bernard J. Picchi, domestic financial analyst, two of the best minds in the analysis business. They rated the relative strength of 18 oil companies based on the degree of their protection against falling prices.

The best-protected internationals are Exxon and Royal Dutch/Shell. These companies have relatively low debt, enabling them to sustain their cash flow better, and they have high tax rates on non-U.S. crude-oil production, which cushion them from falling crude prices because the companies suffer only the loss of the nontaxed portion of the price drop.

Among the domestic companies rated by Salomon Brothers, two are favored because they are refiner-marketers, Amerada Hess and Ashland. The basis is that refining and marketing could enjoy a widening spread between crude costs and finished product prices. Although Salomon Brothers doesn't follow Tosco, the biggest West Coast independent refiner-marketer might also fall in this group. Amerada Hess has the additional advantage of highly taxed oil, a cushion in this circumstance, as explained above.

Also highly taxed and, therefore, cushioned are Kerr-McGee, Murphy, Pennzoil, and Sun, says Salomon Brothers. Pennzoil has the additional advantage of diversification.

Less sensitive to lower world oil prices, say Mlotok and Picchi, are one international firm, British Petroleum, and four domestic firms, of which one is on the West Coast, Atlantic Richfield. The others are Amoco, Diamond Shamrock, and Standard of Ohio.

BP, Arco, and Sohio have lightly taxed ANS oil, which is less of a cushion against falling crude prices, and Amoco has lightly taxed Egyptian oil. In addition, Amoco has greater exposure to weak natural-gas prices. Arco has increasing balance-sheet debt, and Diamond Shamrock has a "high payout ratio, even after restructuring."

At the bottom are three international majors, all on the West Coast, Texaco, Mobil, and Chevron, and two domestic majors, one on the West Coast, Unocal, and Phillips.

The internationals are all considered more vulnerable because of their "high U.S. exposure, especially to heavy oil and natural gas." All have high "balance-sheet leverage," principally the result of debt incurred in their acquisitions: Texaco-Getty, Mobil-Superior, and Chevron-Gulf.

Union and Phillips have high debt because of their restructuring to ward off takeover attempts.

Picchi and Mlotok say a $20/bbl. world crude price would significantly depress the earnings of all of these companies, 35%-40% for the internationals and 45%-50% for the domestics, compared with the previous year. But it is cash flow that services debt, not balance-sheet earnings, and cash flow has held up very well for oil companies, they explain.

For example, they say, "While industry net income dropped 10% between 1980 and 1984, cash flow actually jumped 25%. If world oil prices fall to $20 bbl., cash flow from operations for the six international oil firms might slide by 10%-15%, for the 12 domestic firms only 10%-12%."

The purpose of the Salomon Brothers analysis was to explore what low world crude prices might do to the value of oil-company stocks, which is not the same as how their competitive relationships might be affected. But it is a helpful indicator and demonstrates how oil companies differ from one another.

By the way, for those who may be wondering whether to sell any oil stocks they have, Mlotok and Picchi think a serious plunge in world crude prices could lead to "panic selling" of stocks, in which case the eight companies they consider least sensitive to lower oil prices "could represent good values as the crisis subsides."

They are Exxon, Royal Dutch Shell, Amerada Hess, Ashland, Kerr-McGee, Murphy, Pennzoil and Sun.

By Angel Abcede

SOUTH

Price War Results in 84¢ Posting —A Harbinger or Just Isolated?

A fierce little price war between competing stations at a Brownsville, Texas, intersection provoked lines of cars waiting to fill up, angry assumptions by businessmen and four days of the lowest prices in the nation.

When the dust cleared, Israel Araujo, of Araujo's Exxon Service Station, sold 38,000 gal. at 84¢ for regular and 92¢ for unleaded.

Araujo says he lost $7,000, but hopes to recover the money with his shop and wrecker service.

The turmoil occurred in mid-January when the Billups station on the opposite corner dropped its prices. Araujo says it's the third period of time the Billups station had plunged its prices since Araujo bought the Exxon station 9 months ago.

The first time, Billups dropped its prices on regular to about 95¢, Araujo says. The second time, Araujo says prices hit 88¢, but the third bout, which lasted about 4½ days—twice as long as the two previous matches, saw the lowest prices.

"This is America, and (Billups' supervisor) is lowering his prices in the spirit of competition," Araujo says.

He says his Exxon station, at Elizabeth Street and Cental Boulevard, is pulling volume away from Billups. Since he purchased the station, Araujo claims to have raised volume at his pumps from 40,000 gal./month to 100,000 gal./month.

Billups' supervisor, Raul Hernandez, would not comment on the pricing battle and referred questions to Charter Co. headquarters, Billups' parent company, in Jacksonville, Fla.

A spokeswoman for Charter says the incident was an isolated one, initiated by the station supervisor. Joanne Stone of Charter says the company's policy is to price 1¢ below the major oil companies, but that particular Billups station did "not follow policy and the situation has since been corrected."

Since Charter Co. had filed for Chapter 11 bankruptcy in April of 1984, angry rumors were spreading that Billups' price-cutting strategy was linked to an effort toward selling off assets.

Stone of Charter dispelled the rumors, saying that Billups is part of a subsidiary of Charter, called Charter Marketing Co., which has not filed for Chapter 11 and apparently is not affected by the action of its parent company.

Stone emphasized that the Brownsville incident was the doing of the single station and was not company policy.

Phillip Chisolm, executive vice president for the Petroleum Marketers Association of America, says isolated incidents like Brownsville are usually promotional stunts to gain volume. "It's the price drops that last (making competitors change their prices permanently) that count," Chisolm says.

All three Brownsville price wars ended with Billups bringing its prices back up first, Araujo says. "I don't know if he'll do it again," Araujo says of Billups' supervisor. "But things are back to normal now; it looks like he wants to make peace."

Ezell leaves city for western growth

Dallas-based independent, Jim Ezell, is forging west, taking advantage of low gasoline prices and the new frontier that's opening up as the majors consolidate into the metropolitan areas.

"The majors have taken over the metropolitan areas," Ezell says. "But with gasoline prices so low, there's great opportunity in the other areas."

Ezell purchased a Gulf jobbership in Wichita Falls, Texas, including 15 owned stations and supplying a combination of C-store items and Gulf-branded products to 40 more.

Another deal in the works could give Ezell an added jobbership involving 25 more stations by the end of this month, in his move toward Amarillo.

Pushed from the city by the majors' consolidation, Ezell decides to head west.

His Wichita Falls purchase, settled last December for an undisclosed price, increases his volume by 2 million gal./month, bringing his total to 10 million gal./month.

To operate his new Gulf jobbership, Ezell created Quick Fill of Wichita Falls, which stands as a separate entity from his other two operations.

Oil Companies' Downstream Profits Are Tempered by Restructuring

Buoyed by some of the best downstream profits that some companies have had in years, oil company earnings in 1985, nevertheless, were hurt to varying degrees by the ongoing multi-billion dollar restructuring and set aside programs of the past several years.

Fourth Quarter and Full Year Earnings

(millions of dollars)

Company	4th Qtr. 1985	4th Qtr. 1984	% Chng.	Full Year 1985	Full Year 1984	% Chng.
Exxon	$1,805.5	$1,428.0	26.4%	$4,870.0	$5,528.0	(11.9%)
Mobil	425.0	284.0	49.6	1,040.0	1,268.0	(18.0)
Texaco	307.0	(552.0)	—	1,233.0	306.0	300
Chevron	601.0	434.0	38.5	1,547.0	1,534.0	.08
Amoco	390.0	465.0	(18.5)	1,953.0	2,183.0	(10.5)
Shell	652.0	581.0	12.2	1,650.0	1,772.0	(6.9)
Arco	142.0	285.0	(50.2)	(202.0)	567.0	—
Tenneco	87.0	130.0	(37.7)	172.0	631.0	(72.7)
Stand. Ohio	(771.0)	290.0	—	308.0	1,488.0	(79.3)
Phillips	95.0	169.0	(43.8)	418.0	810.0	(48.4)
Sun	414.0	136.0	204	527.0	538.0	(2.0)
Unocal	(134.8)	153.4	—	325.1	700.4	(53.6)
Amer. Hess	(365.8)	4.0	—	(260.5)	170.5	—
Dia. Sham.	47.8	56.8	(15.8)	(604.7)	242.2	—
Ashland (a)	48.1	29.5	63.0	—	—	—
Kerr-McGee	27.6	(35.2)	—	136.5	152.7	(11.0)
Pennzoil	(41.1)	(49.4)	—	113.2	130.5	(13.3)
Murphy	17.2	20.9	(17.7)	79.9	96.2	(16.9)
Am. Petrofina	(39.4)	17.3	—	(10.2)	45.1	—

(a) 1st quarter; fiscal ends 9/30.

Refining and Marketing Earnings

(millions of dollars)

Company	4th Qtr. 1985	4th Qtr. 1984	% Chng.	Full Year 1985	Full Year 1984	% Chng.
Exxon						
domestic	$ 88	$ 22	300%	$233	$161	44.7%
foreign	404	143	183	643	247	160
Mobil						
domestic	66	(10)	—	157	(4)	—
foreign	76	(59)	—	173	38	355
Texaco						
worldwide	165	(51)	—	276	(309)	—
Amoco						
domestic	59	9	556	262	123	113
Chevron						
domestic	129	134	(3.7)	321	17	1,788
foreign	46	97	(52.6)	169	105	61.0
Arco						
domestic	NA	NA	—	262	212	23.6
Shell						
domestic	167	165	1.2	269	223	20.6
Stand. Ohio						
domestic	111	30	270	424	200	112
Phillips						
domestic	55	43	27.9	157	83	89.2
foreign	0	2	—	13	14	(7.1)
Sun						
domestic	15	10	50.0	121	19	537
foreign	9	(3)	—	7	5	40

Exxon, for example, could have been in the $6 billion range for 1985 profits had it not been necessary to set aside $2.1 billion to protect itself against an adverse court decision. Exxon lost the case in January when the U.S. Supreme Court declined to review an overcharge finding dating back to the early 1970s.

Only two of the top dozen oil companies reported profit increases in 1985—Texaco and Chevron. But, since Texaco had written off three-quarters of a billion dollars in 1984, the year-end comparisons of its figures were thrown off balance. Chevron's gain was a little under 1%.

Among the many write-downs and restructuring changes that affected 1985 earnings were those of Standard of Ohio, $1.15 billion; Mobil, $508 million to revamp subsidiary Montgomery Ward; Unocal, $250 million to close out a shale oil project; Phillips, $117 million in disposing of mineral assets; and Amerada Hess, with a healthy write-down of its own.

Texaco, which is appealing a $10.5 billion jury verdict resulting from its acquisition of Getty Oil two years ago, said at year's end that it had not yet made any set-aside provisions to protect itself against an adverse ruling down the road. Texaco said it made no provisions in the 1985 earnings statement "because the ultimate outcome of the litigation is not presently determinable."

There was much encouragement for most of the oil companies in their downstream earnings in 1985, however.

Exxon had a 44% increase—$233 million in 1985 versus $16 million in 1984.

Mobil, which had a downstream loss of $4 million in 1984, jumped to profits of $157 million last year. Texaco fared very well too, going from a loss of $309 million in 1984 to a plus of $276 million in 1985. However, Texaco's downstream reports were on a worldwide basis so it was not known how the company fared domestically.

Chevron was up spectacularly in 1985, $321 million versus $17 million the year before. Some of this reflected the acquisition of the Gulf properties. On the other hand, Standard of Ohio more than doubled its downstream profits in 1985, hitting $424 million. This, too, reflected the addition of the Gulf southeastern properties which Sohio got from Chevron early last year.

It had generally been assumed that 1986 would be a reasonable duplicate of 1985 but without the high-cost restructuring set asides and write-offs. The free fall of the crude oil prices on the international and domestic markets, however, prompted many analysts and financial experts to pull back on their forecasts until some sort of bottoming out is reached.

"The industry can live with $20 (bbl.) crude," said one marketer, "but if prices keep falling down to as low as $15, things'll get pretty hairy out there."

The Gasoline Derby: Chevron Likely To Hold On to Top Marketing Spot

The definitive figures won't be available for a couple of months yet, but the indications are that Chevron, Texaco and Exxon will wind up One, Two and Three in the annual derby as to who is the nation's biggest gasoline marketer.

Chevron and Texaco vaulted into the lead in 1984 with their acquisitions of Gulf and Getty [*NPN*—June, '85, p27].

Because both were mandated by the courts to spin off some of the acquired stations and marketing facilities, it was at first believed that 1985 might see their reigns being of short duration.

Chevron sold its Gulf assets in the Southeast to Standard of Ohio early last year and had signed an agreement in principle to dispose of Gulf's northeastern assets to Cumberland Farms just before the end of the year. Cumberland will not get possession of the Chevron-Gulf facilities until later this spring, however, thus deferring temporarily another big technical cut in Chevron's gasoline gallonage. But Chevron and Cumberland also have come to an evergreen supply agreement, so Chevron will hang on to 2.5 billion gal. of gasoline, and probably the derby leadership for several more years, at least.

Texaco has completed the spinoff of the Getty stations and facilities but it, too, has a short-term supply contract with Getty Petroleum Co. for the northeastern and Mid-Atlantic states operations. Thus, its total gallonage may shrink a bit faster in 1986.

Exxon is breathing hard on Texaco's tail, according to the product sales figures that were released in the earnings reports by the various oil companies.

Chevron increased its total product sales in 1985 while Texaco and Exxon declined slightly. It must be remembered that the figures in the table below are for all products, not just gasoline. But they can be considered an indication of which way the gasoline race was run in 1985 and the probable winners.

U.S. Oil Product Sales

(000 b/d)

Company	4th Qtr. 1985	4th Qtr. 1984	% Chng.	Full Year 1985	Full Year 1984	% Chng.
Chevron	1,604	1,851	(13.3%)	1,683	1,560	7.9%
Texaco	1,170	1,170	—	1,156	1,180	(2.0)
Exxon	1,121	1,119	—	1,120	1,149	(2.5)
Shell	1,051	948	10.9	953	903	5.5
Amoco	939	878	6.9	911	860	5.9
Arco	NA	NA	—	NA	NA	—
Mobil	814	711	14.5	789	708	11.4
Sun	NA	NA	—	NA	NA	—
Stand. Ohio	626	432	44.9	604	410	47.3
Unocal	NA	NA	—	NA	NA	—
Phillips	551	494	11.5	528	456	15.8
Amer. Hess	NA	NA	—	NA	NA	—

Oil Shale Project Gets Loan Guarantee

In what is expected to be the final action by the Synthetic Fuels Corporation, the agency's board of directors approved a controversial $327 million loan guarantee for Unocal's oil shale project in Parachute Creek, Colo.

Congress, citing poor administration and a glut of oil on the world market, voted last year to kill funding for the synfuels agency. Doors close on the agency in April.

Despite protests from Congress, members of the synfuels board claimed they had a "legally binding commitment" to Unocal for the extra loan guarantees. Rep. John Dingell (D-Mich.), a critic of the Unocal project, said "This brand of corporate socialism does seem bizarre to say the least."

EPA's Move Against Petrocoal Upheld

The U.S. Supreme Court has upheld the Environmental Protection Agency's decision to withdraw American Methyl Corp.'s Petrocoal from the market.

The EPA first granted a waiver for Petrocoal—a blend of unleaded gasoline, methanol and other additives—in September 1981. The Motor Vehicle Manufacturers Assn. and General Motors immediately protested the decision, however, claiming American Methyl provided faulty data to the EPA concerning emissions from Petrocoal. The EPA then initiated proceedings to revoke the waiver.

In 1985, the District of Columbia Court of Appeals claimed EPA erred in granting the initial waiver and gave the agency permission to prohibit American Methyl from marketing the fuel.

Additives Update: "Modest" Growth Ahead

An update on the outlook for the petroleum additives industry over the next three to four years indicates "modest" growth is possible but that's about all. The update was issued by Frost & Sullivan, a market research firm.

The report says volume demand likely will increase from 1.88 billion pounds in 1985 to 1.94 billion pounds in 1990 but that in dollar terms the market will erode from $1.36 billion in 1985 to $1.35 billion in 1990.

Detergents/dispersants, viscosity index improvers and extreme pressure/anti-wear agents comprise more than 70% of the total volume and almost 60% of the total value of additives in 1985, the report says.

Chief reasons cited for the lack of growth include only slight gains in the use of lubricating oils and a slow decline in gasoline consumption at least until 1990.

NHTSA Proposes CAFE Rollback

The federal government has proposed rolling back fuel efficiency requirements in 1987 and 1988 model cars from 27.5 to 26 miles per gallon.

The National Highway Traffic Safety Administration proposal came as good news to Ford and General Motors, both of which faced the possibility of millions of dollars in fines if they had not met the higher corporate average fuel economy (CAFE) standards. NHTSA said its proposal was "responding to concerns over possible automobile industry job losses and restrictions on consumer choice."

Chrysler, which has moved into the market of smaller, more fuel efficient cars in recent years, opposes relaxation of the CAFE standard.

NHTSA set the precedent for this year's proposal last October, when it dropped the fuel standard on 1986 cars from 27.5 to 26 mpg.

Chevron Tops in Credit Card Sales, Shell Leads in Card Accounts—Report

Chevron generated more credit card sales dollars in 1985 than any other oil company even though it ranked only second best in the total number of active accounts in operation and the total number of proprietary cards ostensibly in the hands of consumers.

This was one of the highlights of the latest oil company credit card sales analysis by The Nilson Report, a private newsletter that's circulated among credit card executives in oil and other industries. It is published monthly but has no set schedule for updating its oil industry data.

Nilson said Chevron generated $4.4 billion in credit card sales in 1985—$3.9 billion of it via its own cards (including Gulf's) and $500 million via bank cards.

The report said Shell, which topped the field with 4.8 million active charge accounts and 15.6 million proprietary cards, ranked third in total credit card sales dollars, behind Texaco. Shell had $3.5 billion in total sales while Texaco had $4.3 billion. Texaco, like Chevron, also had a half billion in bank card sales. Shell's charges were confined to its own cards, although some individual retailers accepted bank cards.

Nilson said the number of proprietary cards issued by oil companies rose from 113 million in 1984 to 117 million in 1985. Total accounts, active accounts and spending have remained about the same, the latter about $26 billion annually, Nilson said.

The newsletter took note of the fact that the use of bank cards for gasoline purchases has risen significantly in the past three years, increasing from $1.8 billion three years ago to $2.4 billion in 1985. Bank cards, it said, are now generating about 8.5% of the credit card sales at service stations. On the other hand, the so-called T&E cards (American Express, Diners, Carte Blanche, etc.) are moving along at a much slower pace and are estimated now at about 1% of total charges.

Nilson said the average sale on both bank and T&E cards run 10% to 20% higher than on the proprietary cards which average $17.79 for 12.8 gal. of gasoline at $1.39/gal. Nilson said card holders averaged 4.66 purchases monthly (56 per year) for a total of $996.24 annually per active account.

Nilson said credit card losses in 1985 amounted to $192.7 million, which was 0.73% of credit card sales. Of that amount, it said, $171.5 million went to credit losses and $21.2 million to fraud.

The latest analysis also included a report on Canadian credit card usage. There Shell led the field in the number of active accounts and in both proprietary and total sales. Significantly, Shell as a company accepts bank and T&E cards in Canada and got more than half of its 1985 volume from these two sources. Shell had $1.0 billion in credit card sales in Canada in 1985, $412.5 million in proprietary cards and $590.5 million in third-party cards. Texaco had more of its own cards in place in Canada than Shell but generated only $764 million in charge sales, of which $348 million were bank cards and $30 million T&E.

Information on The Nilson Report can be obtained via P.O. Box 49936 (Barrington Station), Los Angeles, CA 90049; (213) 476-5094.

15 Oil Company Credit Cards in the U.S.—1985

(Add 000 in all categories)

Company	Active Accounts	Total Proprietary Cards	Proprietary Sales Volume	Bank Card Sales Volume	T&E Sales Volume	Total Credit Sales
Shell	4,800	15,581	$3,649,800	—	—	$3,649,800
Chevron Gulf	4,500	15,400	3,910,000	$503,000	—	4,413,000
Texaco	3,700	14,971	3,512,000	502,006	$250,000	4,264,006
Amoco	3,612	14,063	3,314,445	—	21,443	3,335,888
Exxon	3,244	12,200	2,810,818	—	—	2,810,818
Mobil	3,100	13,600	2,033,000	268,000	—	2,301,000
Unocal	2,122	7,000	2,089,000	311,000	32,000	2,432,000
Sohio	1,944	5,000	1,495,000	88,000	—	1,583,000
Sunoco	1,210	4,842	821,461	95,454	4,988	921,903
Phillips	1,161	4,613	1,001,603	150,555	—	1,152,158
Conoco	510	1,400	240,762	50,436	—	291,198
Citgo	300	2,247	220,528	92,242	—	312,770
Marathon	250	1,103	225,232	12,662	—	237,894
Petrofina	201	626	180,312	—	—	180,312
Total Petro.	185	825	160,444	114,000	—	274,444
Totals for top 28 oil companies:	33,533	117,483	$26,444,025	$2,467,846	$333,201	$29,245,072

5 Oil Company Credit Cards in Canada—1985

Company	Active Accounts	Total Proprietary Cards	Proprietary Sales Volume	Bank Card Sales Volume	T&E Sales Volume	Total Credit Sales
Shell	474	1,566	$412,509	$510,000	$80,475	$1,002,984
Texaco	451	1,670	386,372	347,600	30,000	763,972
Esso	421	1,498	342,387	322,000	—	664,387
Gulf	232	799	178,187	191,000	—	369,187
Petro	221	867	219,465	211,000	—	430,465
Totals for top 11 oil companies:	2,025	7,255	$1,755,814	$1,826,552	$120,475	$3,702,841

Source: The Nilson Report, December 1985, Issue #370

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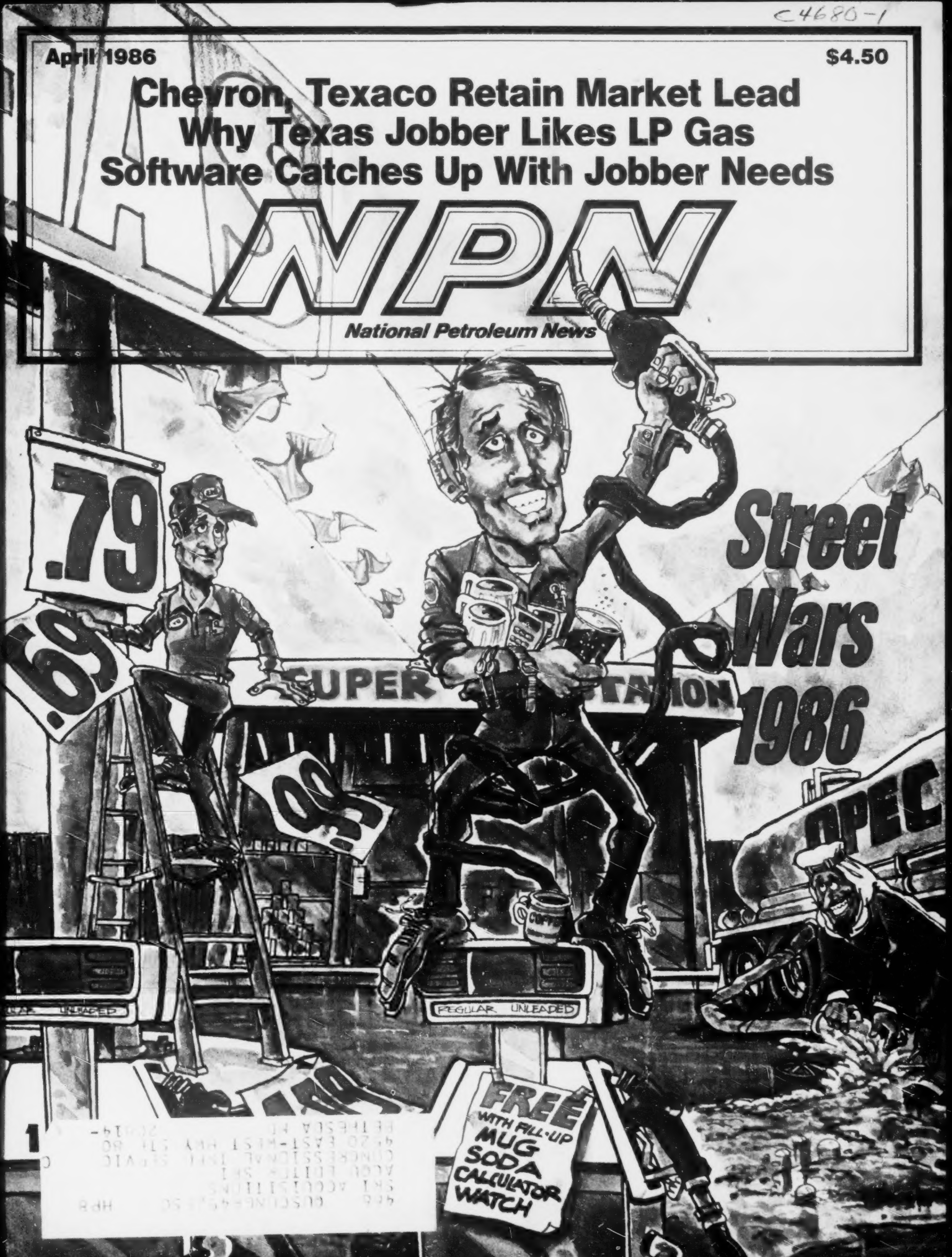
April 1986 $4.50

Chevron, Texaco Retain Market Lead
Why Texas Jobber Likes LP Gas
Software Catches Up With Jobber Needs

NPN
National Petroleum News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SUPER STATION
OPEC
COFFEE
REGULAR UNLEADED
UNLEADED
FREE WITH FILL-UP MUG SODA CALCULATOR WATCH

Street Wars 1986

NATIONAL PETROLEUM NEWS

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With prices continuing their nosedive, this spring and summer could go down as one of the wildest in recent memory for U.S. refiners and marketers. Many are looking for a no-holds-barred scramble for gallons, and margins could take a beating. **Page 36**

REGULAR UNLEADED
FREE
WITH FILL-UP
MUG
SODA
CALCULATOR
WATCH

Whether a direct result of falling prices or not, retail promotions and giveaways are back and some say bigger than ever. Here's what some marketers that have jumped on the bandwagon have to say about promotions. **Page 42**

Out where the West Texas winds drive tumbleweeds and the oil economy has fallen flat, jobber Ken Peeler has built his business on motor fuels and propane, an ace few jobbers have tucked up their sleeves. **Page 52**

• TRENDS

Is the Lead Phasedown On Track? Don't Ask EPA

The federal lead phasedown program, aimed at reducing the amount of tetraethyl lead in leaded gasoline to a minuscule 0.1 grams/gal., may or may not be on schedule. The EPA doesn't seem to know, and nobody else could.

The problem is that the Environmental Protection Agency is swamped by paper submitted by blenders claiming lead credits. Prior to the phasedown program, there were about 250 reporting refiners and blenders in the country. When EPA lost count last year, there were reportedly more than 900 and the number was growing.

Except for the first quarter of 1985, EPA has not issued any reports, not even tentative or preliminary, on how much lead was being banked by refiners and blenders. This is a crucial number because it is the key to how much lead will eventually get into gasoline.

The essence of the phasedown program was to accomplish its lead reduction without forcing some small or low-technology refiners out of business. To do this, the phasedown period was spread out to 2½ years by means of a clever and imaginative system of lead credit banking.

EPA allowed any refiner or blender which used less than the allowed amount of lead in 1985 to save the difference and use it in 1986 and 1987. Lead credits could be sold or traded, too, giving some small independents a chance to obtain needed lead until they could upgrade their refineries.

The permissible limits were 1.1 grams lead in leaded gasoline during the first half of 1985, 0.5 gram in the second half, and 0.1 gram in 1986 and 1987. Credits could be used until the end of 1987, but not thereafter.

The theory of lead banking was that the amount of lead emitted to the environment by gasoline would be the same whether the phasedown was ordered immediately or spread out over a period of 2½ years. Refiners and blenders were required to report how much lead credit they were claiming.

A hitch was that any gasoline marketer who blended alcohol into his leaded gasoline so as to lower its lead content below the permissible limit generated lead credits. This, and perhaps other factors, brought new blenders out of the woodwork.

An EPA source says much of the paperwork sent in by the new blenders had to be sent back. As of the first quarter of 1986, EPA claimed not to have any reportable information on the size of the lead bank after the first quarter of 1985.

Obviously, if an excess of lead credits was being claimed, the amount of lead getting into the environment would be greater than EPA planned. Hopefully, this would be found out in time to prevent it.

As the program unfolded after March 1985, it turned out that refiners immediately began to build lead credits, which means they were using less lead than the limit allowed. This was a plus for the program because it hastened the removal of lead from the environment.

EPA estimated refiners and blenders were using an average of 0.7 g/gal. in the first quarter of 1985, a saving of 0.4 g/gal. below the permitted federal level of 1.1 g/gal. This removed 3.6 billion grams of lead from the environment ahead of time.

Based on the apparent logic of such reductions, *NPN* estimates the average reduction was to 0.6 g/gal. in the second quarter and 0.3 g/gal. the remainder of the year. On this basis, the amount of lead bank was 12.1 billion grams going into the final phasedown period in 1986.

If this amount of bank were used up evenly over the 24 remaining months, it would add about 0.2 g/gal. to the permitted 0.1 g/gal., for a total of 0.3 g/gal. But—and this is an important but—if the amount of lead credits being claimed by refiners and blenders was inflated by incorrect calculations, misunderstanding of the rules, or any other reason, the national objectives of the lead phasedown program would not be met.

Evidently, this quagmire came to the attention of Congressman John Dingell (D-Mich.), chairman of the subcommittee on oversight and investigations, who called for an investigation by the Government Accounting Office. One of the things he wanted to know was whether EPA had lost control of the program. He also wanted to know whether existent or nonexistent lead credits were being used to gain an unfair competitive advantage.

The GAO group planned to make a report to the subcommittee by the end of May. Presumably they or Rep. Dingell or the subcommittee would decide whether the lead phasedown program is off the track and, if so, how it might be set right again. —*Mark Emond*

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

JANUARY	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.109	$1.107	$1.194	$1.336
Regions:				
Northeast	1.232	1.151	1.220	1.350
North Central	1.191	1.123	1.204	1.354
South	1.173	1.091	1.176	1.318
West	1.177	1.086	1.184	1.333

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	2/28/86	3/1/85
Gasoline (total)	244,485	227,278
Gasoline (Unleaded)*	125,806	107,092
Jet Kerosine	36,139	34,755
Distillates	114,581	123,402
Residual	41,859	47,079

**Included in gasoline total.*
Source: American Petroleum Institute.

NPN

NATIONAL PETROLEUM NEWS APRIL 1986

Chevron, Texaco Maintain Grip On Top Gasoline Marketing Spots

Even though they lost some gallonage in the process of complying with government-mandated spinoffs of selected downstream operations. Chevron and Texaco continued to dominate gasoline marketing in 1985.

Preliminary volume data compiled by *NPN* shows that the two companies held on to their top positions for the second year in a row while Exxon pulled in third, also for the second consecutive year.

Chevron and Texaco exploded from the ranks in 1984 on the basis of their acquisitions of Gulf Oil and Getty Oil respectively [*NPN*—June '85, p27].

It had been expected, however, that Federal Trade Commission requirements to divest themselves of substantial marketing facilities would also cost them significant gasoline volumes in 1985—perhaps enough to make their reigns as the industry's leaders short-lived.

The spinoff processes moved more slowly than anticipated so the gallonage losses in 1985 were not that severe. They may have a more telling impact on the 1986 statistics, though. That remains to be seen.

Chevron
SELF SERVE
CHEVRON
SELF SERVE

Despite the sale of thousands of retail outlets to Standard Oil of Ohio, Chevron kept its top spot in gasoline marketing with sales of over 9.7 billion gal. last year.

Chevron sold thousands of service stations and terminal facilities in the Southeast to Standard Oil Co. of Ohio in the spring of 1985. It also sold another big block of stations in the Northeast to Cumberland Farms, a C-store chain, in the fall of 1985 but these marketing assets are not scheduled to be closed out until this spring. Chevron and Cumberland also have negotiated an evergreen contract on supplies so Chevron's volume losses may not be that severe in this exchange after all.

Texaco has disposed of the Getty marketing facilities in the Mid-Continent and the East Coast, the latter to Power Test Corp., which has been renamed Getty Petroleum Co.

Major changes in the 1985 "finishers" in the traditional "gasoline derby" in 1985 included Shell, with an 8% increase in volume, overtaking Amoco; and Mobil, with a 12.7% increase, vaulting ahead of Arco, which began a withdrawal from the East in late summer.

Sohio, on the basis of its acquisition of the Gulf facilities in the Southeast, had a big jump in gallonage, a 35.7% increase which enabled it to zip past Sun and become the eighth biggest marketer.

The volume totals compiled by *NPN* are those given by the oil companies in their annual reports for their gasoline sales in 1985.

Not all of these volumes are strictly motor fuels, however, and some of them have been restated by the various oil companies.

Chevron, for example, said its 1985 total of gasoline is "mostly motor fuel," but that "some av gas" and "some other oil products" are included.

Chevron also revised its gasoline volume for 1984, increasing it from 9.6 billion gal. to 10.3 billion gal. on the basis of a re-evaluation of the Gulf gallonage that was rolled in.

Exxon said its gasoline total included some naphtha.

Other oil companies conceded that the gasoline volumes in their annual reports were not necessarily all true blue motor fuels; that other products sometimes were included for the purpose of simplification of totals.

The *NPN* compilations differ from the Federal Highway Administration totals which are based generally on state-by-state taxable volumes reported by wholesalers and suppliers.

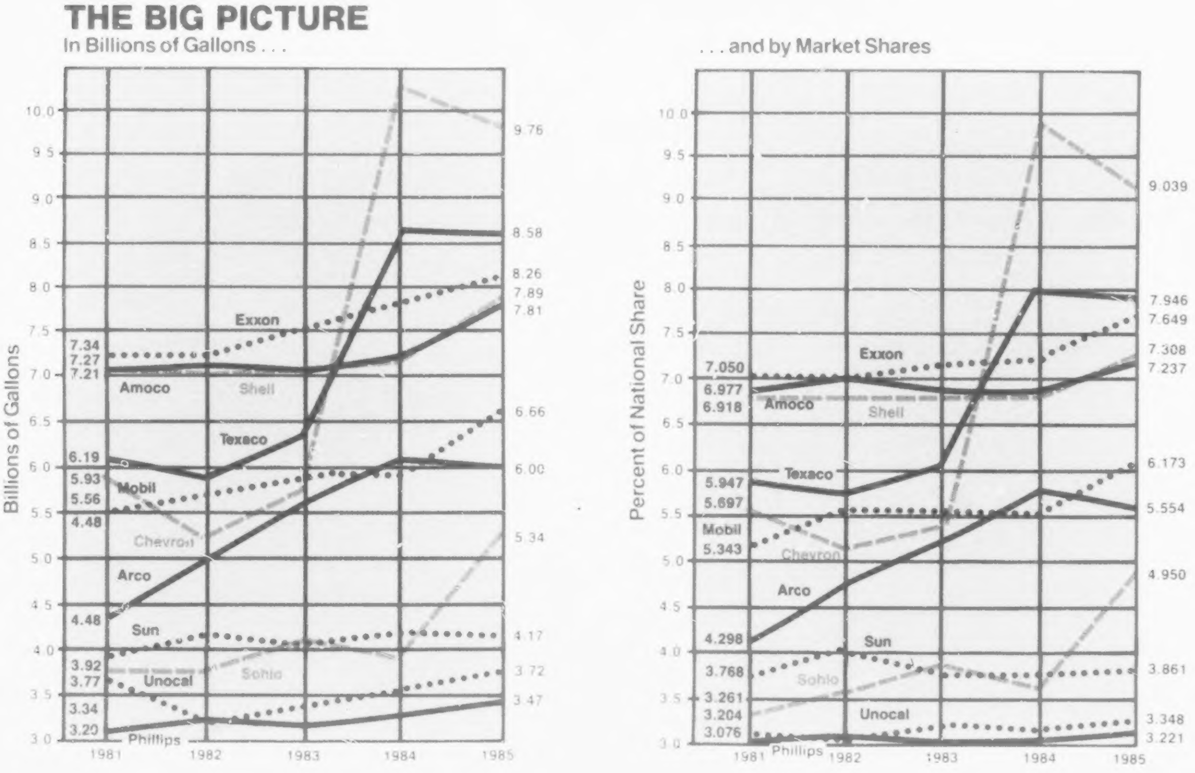
The annual gasoline market used by *NPN* in its market shares is that of the Federal Highway Administration in 1984 and an estimate for 1985 based on the FHA data plus the increase of 1.6% that Energy Information Administration and American Petroleum Institute say took place in 1985.

The collapse of the crude oil market in late 1985 was expected to have dramatic impact on gasoline volumes in 1986 as street conditions changed and competition intensified. There were, for example, retail postings of 60¢ to 70¢ gal. for leaded and unleaded gasolines as early as February in some areas of the country. Whether these are going to become commonplace through the spring and summer remains to be seen. But with crude postings of $15 bbl. and reports of $13 bbl. in New York harbor and overseas, it promises to be a wild marketplace this summer.

(Continued on Page 28.)

Retail Market Shares, Continued...

THE BIG PICTURE



The Gasoline Market: By Gross Gallonage and Relative Shares for the Top Companies

1985 Volume: 108,032,538,600 gal. (a)
1984 Volume: 106,331,239,000 gal. (b)

	Rank		% Share of Natl. Mkt		Volume (Add 000 gal.)		% Change	
Company	1985	1984	1985	1984	1985	1984	1985/1984	1984/1983
Chevron (c)	1	1	9.039%	9.732%	9,765,210	10,347,750	(5.6%)	82.4%
Texaco (d)	2	2	7.946	8.146	8,584,800	8,661,450	(0.09)	34.2
Exxon	3	3	7.649	7.410	8,262,870	7,879,620	4.6	1.8
Shell	4	5	7.308	6.877	7,894,950	7,312,410	8.0	2.6
Amoco	5	4	7.237	6.935	7,818,300	7,373,730	6.0	2.6
Mobil	6	7	6.173	5.565	6,668,500	5,917,380	12.7	—
Arco (e)	7	6	5.554	5.781	6,000,000	6,147,330	(2.4)	8.7
Sohio (f)	8	9	4.950	3.705	5,347,134	3,939,810	35.7	(3.7)
Sun	9	8	3.861	3.878	4,171,293	4,123,770	1.2	2.3
Unocal	10	10	3.446	3.345	3,725,190	3,556,560	4.7	2.3
Phillips	11	11	3.221	3.143	3,479,910	3,341,940	4.1	2.8
Total			66.38 %	64.15 %	71,718,127	68,601,750	4.5%	10.0%

(a) Estimated on the basis of Federal Highway Administration's data on 1984 consumption plus 1985 [illegible]
(b) Federal Highway Administration's consumption data for 1984.
(c) Chevron in 1984 reflects the addition of the Gulf merger gallonage [illegible]
(d) Texaco in 1984 reflects the addition of Getty Oil Co. gallonage, and 1985 refers to the period [illegible]
(e) Arco began a major market withdrawal in 1985 and the company [illegible] NPN arbitrarily assigned the 6 billion gal. volume to balance the statistical table and reflect a [illegible] figure for Arco.
(f) Sohio's 1985 volume reflects the addition of its acquisition of the Chevron Gulf assets in the Southeast.

Sources: Federal Highway Administration tables and oil company annual reports [illegible] Most of the gasoline volume is motor fuel although some companies note that other products, i.e., naphtha and avgas, may be included in the gasoline totals.

Jobbers, Dealers Stake Overcharge Cash

Jobbers and dealers at press time appeared to be on the verge of winning a stunning victory by staking claim to some $118 million in crude oil overcharge money.

A tentative deal was being worked out which would decide how a pot, expected to reach more than $4 billion, would be distributed. Under the plan, retailers and wholesalers will evenly split $118 million.

Washington attorneys Robert Bassman and Douglas Mitchell, who have represented oil marketers during arduous negotiations over the last several years, said individual settlements could range from between $3,000 to $30,000, depending on damage suffered during overcharge years.

Under the tentative agreement, the states and federal government would split about $3.5 billion of the pot of more than $4 billion. The remaining money would be divvied up among refiners ($300 million), jobbers and dealers ($118 million), farm cooperatives ($46 million), airlines ($39 million), surface transporters ($10 million) and utility ($5 million).

The deal would settle stripper well and other crude oil overcharge cases from 1973 until oil was decontrolled in 1981. The stripper well case is currently pending before Judge Frank Theis in a Kansas federal district court. Theis will have the final say on whether the pact is approved and how the $4 billion is distributed.

Theis had not seen the tentative settlement at press time, but Bassman and Mitchell were cautiously optimistic the judge would approve the plan and that refunds could be in the pockets of jobbers and dealers within a year.

The lawyers, who represent the Petroleum Marketers Assn. of America on all oil overcharge cases, said they expect numerous appeals to be filed by parties interested in obtaining a piece of the $4 billion settlement.

Congress may also throw up a roadblock. Rep. John Dingell (D-Mich.), powerful chairman of the House Energy and Commerce Committee, is protesting the provision which provides refunds to the same refiners who were responsible for the overcharges.

Bassman and Mitchell stressed the tentative settlement involves crude overcharges and not overcharges for refined product such as gasoline. Jobbers and dealers will continue to qualify for refined product overcharge refunds. **NPN**

Refinery Closings Slow, Net Loss 'Insignificant'

Refinery losses in 1985 were minimal, with 11 shutdowns and six new or reactivated units coming on stream for a net loss of five, according to Energy Information Administration. All but one of the shutdowns were in the so-called "tea kettle" refinery category.

The 11 shutdowns aggregated 186,826 b/d of crude distillation capacity, while those coming on stream aggregated 130,000 b/d. The net loss then was 50,000 b/d, an insignificant amount in light of the millions of b/d that have been lopped off in recent years.

The federal agency said the U.S. refinery population on Jan. 1 of this year was 223 operable units with an aggregate crude oil distillation capacity of 15.7 million b/d, virtually the same as it was on New Year's Day of 1984.

Since Jan. 1, 1981 when the reversal began, crude oil refining capacity has been reduced approximately 3 million b/d and the total number of refineries has been cut back from 324 units to 223 units currently.

Here's the listing of 1985 shutdowns and startups.

Refinery Closings

Refiner	Location	Crude Oil Distillation Capacity (B/CD)	Downstream Capacity (B/SD)	Operating History
	Refinery Closings Since Jan 1, 1985			Years in Operation
Allied Materials Corp.	Stroud, Okla.	7,600	2,500	37 +
B-T Energy Corp.	Louisville, Ky.	3,000	0	3
Coastal Petroleum Refiners	Bakersfield, Calif.	10,000	0	6
Damson Gas Processing Corp.	White Deer, Texas	0	1,000	12
Flint Chemical Co.	San Antonio, Texas	1,500	0	23
Gary Refining Corp.	Fruita, Colo.	15,200	18,100	19
Golden Eagle Refinery Co.	Carson, Calif.	16,170	0	37 +
International Processors	St. Rose, La.	28,356	14,000	6
Texaco Refining & Marketing	Amarillo, Texas	20,000	24,400	37 +
Texaco Refining & Marketing	Lawrenceville, Ill.	79,000	134,000	37 +
Vicksburg Refining	Vicksburg, Miss.	6,000	0	7
Total		186,826	194,000	
	New and Reactivated Refineries Since Jan 1, 1985			Status
Atlantic Richfield Co.	Kuparuk River, Alaska	12,000	0	N
Barrett Refinery Corp.	Thomas, Okla.	11,600	0	R
Hill Petroleum Co.	Krotz Springs, La.	57,400	62,000	R
Primary Oil & Energy Corp.	Chester, Va.	2,000	0	N
Seminole Refinery Corp.	St. Marks, Fla.	17,000	10,115	R
Trifinery	Corpus Christi, Texas	30,000	30,000	R
Total		130,000	102,115	

Source: Energy Information Administration, Petroleum Supply Monthly, November 1985. Published January 1986.

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May 1986 $4.50

Is There a Bottom to Price Turmoil?
Trends: Majors Tighten Noose on Big Cities
How Farm Belt Jobbers are Coping

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National Petroleum News

GRACE'S OASIS

How They Are Changing Today's C-stores

- What the Majors are Doing
- New Trends Among the Indies

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GRACE'S
OASIS

Leading off our package of articles on convenience stores is a close-up look at a highly innovative multi-function "theme store" out in Mojave, Calif. This $2 million establishment has everything from fast food to an arcade. **Page 38**

From delis to laundromats, the diversity of retail facilities that independent marketers are tying into their C-stores is aimed at one thing—earning the most from available real estate. **Page 44**

Although the plight of America's farmers has moved off the front pages, their problems remain. Here's a look at what some jobbers are doing to maintain their farm accounts and stay afloat. **Page 54**

Trial Judge Hints Error Made in Pennzoil Case

With a hint from the trial judge that he may have made an error, the picture brightened considerably for Texaco Inc. in its titanic legal struggle with Pennzoil Co.

Pennzoil, which sued Texaco and in December won a $10.5 billion verdict plus interest for interference in its acquisition attempt of Getty Oil Co., appeared to have suffered a setback last month, when Texas Judge Solomon Casseb Jr. said he may have been mistaken in a legal interpretation.

Casseb, who had affirmed the verdict and rebuffed Texaco's attempts to have him disqualified, now concedes, according to published reports, that he had been mistaken in his interpretation of New York law as applied to the Texaco case. Casseb was quoted as having told a questioner at the Los Angeles County Bar Assn. meeting on April 2 that "there is a good chance I may have read the cases wrong, and not have applied it (the law) correctly."

Texaco attorneys said they may seek to reopen their challenge to Casseb's qualifications and perhaps win a new trial.

Since the verdict was handed down in November, the stock prices of both Texaco and Pennzoil have been directly affected by any developments in the case. After this story appeared, financial markets responded by bidding up Texaco's stock while Pennzoil's fell.

Washington Dealers Win New Protection in Law

Dealers in Washington state mined most of the legislative nuggets they were prospecting for, with one notable exception, when Gov. Booth Gardner on April 4 signed into law the "Dealer Bill of Rights."

Effective June 30, the new law extends dealer franchise rights to include survivorship, assignment and first refusal on station sales. However, a provision that would have prevented supplier price discrimination to dealers in the same marketing area (a five-mile radius) was vetoed by the governor. He did, however, remove an exemption for small refiners, which will bring in independent and C-store chains such as Southland.

Highlights of the law include: limits on alteration of franchise terms without dealer approval; prohibition of minimum volume requirements unless the supplier's price is low enough to make the minimum attainable; a ban on suppliers' setting or compelling retail prices; and a ban on restrictive buying requirements, except for certain reasonable circumstances.

The Washington attorney general is directed under the law to investigate oil marketing practices in the state. Dealers anticipate the study "will lay the groundwork for additional dealer protection proposals," in the next session, says Tim Hamilton, executive director of the Automotive United Trades Organization, the dealer group that pushed the bill through the legislature.

Chevron to Shut Down Ohio Refinery in July

Chevron Corp. said it is shutting down all processing and terminal operations at its 43,700 b/d refinery in Cincinnati, Ohio, in early July, making it the second refinery the company has closed this year. Also, the company said it plans to sell its refinery in Puerto Rico.

William Bruner, refinery manager, says the proximity of the company's Gulf Coast refineries to crude oil sources and the nationwide excess of refining capacity were factors leading to the decision to close the Cincinnati plant.

Bruner added that the company began a review of Chevron's "entire refining and marketing needs east of the Rockies" following the merger of Gulf Oil Co. and Chevron that was concluded last year.

The company concluded that marketing needs and refining capacity in the Ohio River Valley could best be served using barge and pipeline delivery from the company's refineries at Pascagoula, Miss., and Port Arthur, Texas.

Chevron says the closing will not affect the supply of motor fuels, jet fuels and asphalt to the Cincinnati area.

The 200 employees at the Cincinnati refinery were notified of the decision in early-April. The company says it will explore employment opportunities for them at other Chevron locations. Chevron closed its refinery in Perth Amboy, N.J., in 1982 and another in Bakersfield, Calif., earlier this year. Also noted was the sale of the company's 38,000 b/d refinery in Puerto Rico and some 250 stations there to New York-based Carey Energy Corp.

Chevron Puts Pressure On Exxon in Texas

Chevron Corp., through its acquisition of Gulf Oil Co., is now challenging Exxon for the leader's role in the gigantic Texas market.

Exxon, however, retained the lead in tax paid gallonage in 1985 with 9.2% of the state market as compared to Chevron's 8.8%. Two convenience store chains were in last year's top 10 in Texas—Southland Corp. with 5.14% of the market and Circle K with 1.2%.

Following are the 10 top companies, their sales, and percent of market as reported by the Texas Oil Marketers Assn. from the state comptroller of public accounts:

Company	Gallons (in millions)	% of Market
Exxon	777.4	9.25
Chevron	743.9	8.85
Sigmor/Shamrock	588.9	6.95
Texaco	542.8	6.46
Southland	431.8	5.14
Shell	336.7	4.01
Mobil	307.4	3.66
Kempco Petro.	153.4	1.83
Circle K	104.9	1.25
Conoco	101.8	1.21

(Note: Since many branded distributors in Texas remit taxes direct, these reported figures are not a true indication of exact market share.)

• TRENDS

Majors' Grip on Big Cities Means Higher Dealer Prices

Back in the early 1980s when word was passed around that the major oil companies were staking out large metropolitan markets as their own preserves, independent marketers warned that the day would come when gasoline prices would be much higher in the big cities than in small towns.

Such a trend has apparently developed in Texas and other parts of the Southwest, although it is too early to determine if it will last.

In March, consumers in such large Texas markets as Houston, San Antonio and Dallas-Fort Worth were looking at pump prices ranging from 20¢ to 25¢ gal. higher than some being posted in many small towns around the state. In the Dallas-Fort Worth market, for example, postings for leaded regular were generally in the high 80¢, low 90¢ range. By comparison, independent marketers and a few branded dealers were posting in the high 60¢, low 70¢ range in small towns within 100 miles of these twin cities.

The wide price spreads between the two types of markets were beginning to raise some eyebrows. The Texas attorney general's office was talking about investigating the wide difference in both pump postings and in what jobbers and dealers were being charged for product by the majors. Some dealers were also threatening legal action (see Page 24).

Some independents say the stage was set for the present price disparity scene to develop three or four years ago.

At that time, they say, the major oil companies began switching to terminal pricing and away from the old system of pricing product to jobbers at a discount from their dealer tankwagon prices. Some companies stated at the time that they would henceforth treat jobbers and dealers as two distinct and different classes of customers.

Jobbers soon found out what the companies meant. There were times in the early 1980s, especially in the big-city markets, when dealers of a particular company could buy product at or close to what the company was charging jobbers. The jobbers howled, of course, but the companies said they were simply meeting the dealer prices being charged by other large companies.

Not much was heard from the dealers at the time, and for good reason. They had been accustomed to seeing jobbers buy product at 3.5¢ to 4¢ gal. below the dealer tankwagon. They were delighted with the turn of events at that time.

But they aren't now. Recently, according to Bill Ligon, head of the Texas Service Station Assn. Texas dealers who were buying product direct from a major oil company were generally paying from 18¢ to 22¢ gal. more for product than jobbers were paying. A small town dealer could buy product from a jobber, said Ligon, for 54¢ gal. at a time when a dealer buying direct from a company had to pay 70¢ gal.

Some dealers did buy product from jobbers rather than the companies for a short time, says Ligon, but the companies put a stop to this by putting their jobbers on allocation.

"We can't understand why up until the end of last year, 4¢ gal. was considered by the companies to be sufficient for the jobber's functional discount and now they are getting 20¢," says Ligon. "We want the companies to explain their reasoning to the attorney general's office."

Just as the dealers did two or three years ago, the jobbers aren't saying much about the favored position they were in for awhile. "We don't think it will last," said Jerdy Gary, president of the Texas Oil Marketers Assn. "I know the dealers are saying we're having a field day but I remember when they did, too. It has turned around right now but it will settle down."

Some marketers believe, however, that the majors may now have the big city markets in Texas thinned out to where this won't be the last time that retail prices in them are considerably higher than those in small towns.

It is pointed out that many independents have left the big cities for smaller markets and have carried their price-cutting tactics with them. The metropolitan markets in Texas still have a sprinkling of indies here and there, but for the most part, they are now dominated by major brand outlets and convenience store chain units. The C-stores can be fierce competitors but, as TSSA's Ligon says, "they are happy to keep their postings up near the majors if they are making 25¢ to 30¢ gal." —*Marvin Reid*

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

FEBRUARY	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.119	$1.034	$1.120	$1.282
Regions:				
Northeast	1.189	1.109	1.173	1.312
North Central	1.076	1.006	1.089	1.249
South	1.115	1.033	1.118	1.265
West	1.117	1.021	1.118	1.296

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	3/28/86	3/29/85
Gasoline (total)	225,468	221,005
Gasoline (Unleaded)*	116,053	102,235
Jet Kerosine	38,898	34,733
Distillates	95,143	100,212
Residual	39,387	44,607

**Included in gasoline total.*
Source: American Petroleum Institute.

NPN

NATIONAL PETROLEUM NEWS MAY 1986

Cash Flow Problems Loom as Major Headaches for Gasoline Marketers

Cash flow problems could very easily be the ones that drive many gasoline marketers up the creek or off the wall this summer.

With no end in sight to the continuing erosion of crude oil and refined product prices, the warm weather outlook for gasoline marketers is an incongruous blending of good times and bad—booming demand for product and services and fewer dollars moving in and out of the till to cover operational costs and expenses.

Most of the oil companies have already prepared for a leaner 1986. They've cut billions of dollars from last winter's capital spending plans and programs. One industry estimate is that the total reductions are now around $12 billion—20% to 25% less than had been projected.

Fortunately for marketers, most of the cutting to date has been upstream in the exploration and production sections. Two-thirds to three-fourths of the slashes have been in that area. The fact that downstream operations have been treated more gently attests to the fact that the big companies are acutely aware of the intensifying competition for gallonage and are reluctant to pull back on their modernization, image and expansion plans.

The summer driving season—at least the start of it—is only weeks away. It can be anticipated that gasoline demand will rise this summer as motorists hit the road in record numbers to take advantage of the cheapest gasoline that's been around in 10 to 12 years.

Therein lies the rub. Volume will be up but cash flow will be down significantly. The big question this year will be whether operational costs also can be brought down to match the decreased flow of dollars in and out of the till.

There also has to be a re-assessment of the marketplace itself.

In recent years, with gasoline and fuel oil selling well above $1 gal., a million gallons of either product equated out to a shrug of the shoulders—$1 million or more moving through cash registers.

Prices have plummeted since mid-winter when the international crude oil markets collapsed [*NPN*—March '86, p31].

Gasoline fetched 70¢ to 80¢ gal. in the waning days of March and there were some sections of the country that saw retail postings in the mid- to high-60¢ gal. range. Fuel oil dropped steadily in February and March, too, and some discounters were selling No. 2 at 80¢ gal.

What this means, however, is that the old $1 million worth of product is now producing about 25% to 30% fewer dollars, so its value is only $650,000. The margins of recent vintage seem headed for a paring as one direct result.

The pressure on cash flow is also going to intensify the institutional crisis over liability insurance. Those costs have been escalating in leaps and bounds. The Reagan Administration has made some proposals to ease the liability dilemma but these are not expected to have any effect on policy costs for two or three years.

What happens in the international crude oil markets this summer is going to have a dramatic impact on retail prices for gasoline now and fuel oil next winter.

Crude prices were down to the $10 to $11 bbl. level in late-March and even dipped below that into single digits on April Fool's Day. Saudi Arabia, which precipitated the excesses last October by boosting its output to 4.5 million b/d, was quoted as saying that it has no intention of backing off until the OPEC and non-OPEC countries reach some sort of an agreement on reasonable price and production schedules.

In early-April, there was talk that crude prices could drop as low as $5 bbl.

International analysts said the imbalance in crude oil supplies reached the 5 million b/d mark in early-April.

Industry and financial experts generally agree that the capital spending cuts made by oil companies earlier this year were realistic in the sense that they were needed but, from the long-term viewpoint, only hasten the day in the 1990s when the OPEC states will once again have control of the international markets.

The spending cuts varied from company to company. Exxon, the industry's powerhouse, took the biggest cut of all —$2.8 billion. Of the top 12 companies, only Shell indicated it had no reductions planned.

Of the top dozen oil companies, reductions already in place total $9.8 billion. This is 23% less than had been scheduled for 1986 in the pre-collapse planning days. NPN

Oil Companies Cut $9 Billion In Face of Falling Prices

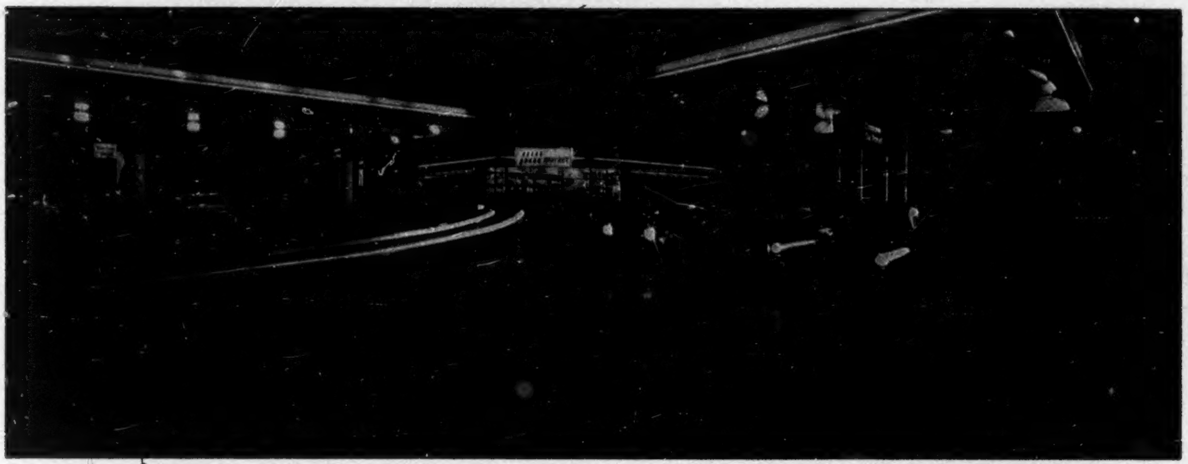
Capital spending cuts totalling roughly $9.8 billion have been programmed for 1986 by 11 of the 12 top oil companies as a direct result of the collapse of the crude oil marketplaces this past winter.

Here's a simplified boxscore which distinguishes only between upstream and downstream operations to indicate where the pruners have done the most cutting:

Company	Original Budget	$$$ Cut	New Budget	% Change	Upstream Share (%)	Downstream Share (%)
			(Billions of dollars)			
Exxon	$10.8	$2.8	$8.0	(26%)	75%	25%
Mobil	4.1	1.1	3.0	(27)	84	16
Texaco	2.8	0.3	3.0	(10)	Mostly Upstream	
Chevron	5.0	1.5	3.5	(30)	65	35
Amoco	5.0	1.5	3.5	(30)	No Breakout Available	
Shell	3.9	No Cuts Planned as of 3/31/86				
Arco	3.0	1.0	2.0	(33)	35	65
Tenneco	1.7	0.4	1.3	(25)	Mostly Upstream	
Standard	2.5	0.2	2.3	(8)	Mostly Upstream	
Phillips	1.4	0.4	1.0	(30)	64	36
Sun	1.6	0.3	1.3	(20)	Mostly Upstream	
Unocal	1.5	0.3	1.2	(20)	83	17
Total	43.3	9.8	30.1	(23)	83	17

Note: Figures and percentages may vary due to rounding off of numbers; also some percentages are estimates rather than hard numbers.

What the Oil Companies Are Doing in C-stores



Arco owns the majority of its am/pm C-stores, which now total about 450 since its withdrawal from the eastern U.S.

For the past decade, the large, integrated oil companies have tended to view convenience stores and their independent operators somewhat disdainfully. While most steadfastly clung to traditional service station concepts, a few were slowly testing the waters.

Now, however, the oil companies are in the grocery business, whether by design or from peer pressure. And while each company takes a decidedly different approach to C-stores, they have made substantial commitments to this form of oil marketing.

The following is a brief look at what each of the largest oil companies are doing in C-stores and how C-stores fit into the company's marketing plan.

AMOCO

Amoco has been in the C-store business six years but declined to release figures on how many exist. As with gallonage and inside volume, Amoco withheld the information for "competitive reasons."

While most of the newer stores share a common appearance, Amoco C-stores have "no uniform design," the company says. Sales items inside vary as do the hours of operation, but many stores do run 24 hours.

The company owns quite a few stores, most of which are dealer-operated.

ARCO

Arco got into the C-store business in 1980. Its goal, at the time, was to have 1,400 to 1,800 "am/pm" stores by 1985 [*NPN*—April '80, p46]. However, in 1985, Arco began its historic retreat to the West, abandoning gasoline marketing (and C-stores) east of the Rockies. Atlantic Petroleum which bought 550 or so Arco stations in Pennsylvania and New York kept the mini-marts and simply converted them over to its own brand.

Arco itself, after the withdrawal, had a total of 1,700 branded stations and 400 C-store outlets. These are all company-owned and operated or operated by lessee-contract dealers. Each of the stores carries about 2,000 to 2,500 items but Arco is currently experimenting with fast foods, such as hot dogs, soft drinks, soft ice cream, sundaes and sodas. "We're out ahead of the field on this," a spokesman said.

Arco declined to give any inside sales figures but the 1980 projections were to have each store doing at least $500,000 by 1983. If that pattern was followed, stores must be over the $600,000 mark by now. Arco says its stations are averaging 170,000 gal./month.

Most of the stations are 24-hour operations but there are a few with 12- to 18-hour schedules.

Company says am/pm stores average about 2,000 sq. ft. When stores are new and built from ground up, Arco shoots for 2,400 sq. ft.

CHEVRON

Chevron has about 300 C-stores. While their jobbers have been in it a little longer, Chevron has only been in the business for two years. Company jobbers run about 800 C-stores. Of the 300 company-owned outlets, about 25 are operated by Chevron. In fact, the company says when it tears down and rebuilds a site, a dealer is usually found to operate it. Gulf operates some 400 C-stores.

Most of the stores are island marketer type of about 900 sq. ft. Generally, they fall into three sizes: 250 (mini-mart), 400 sq. ft. (maxi-mart) and 900. Volume and gallonage were not available. Most operate 24 hours. They sell groceries, snacks, soda, coffee, microwave food and hot dogs.

Chevron says it will probably double the number of C-stores it has in the next two years, depending on oil prices, as it is in the middle of a five-year program.

MOBIL

The company declined to provide details on the number of C-stores it has. It moved into C-store retailing in 1977 and today its most common offering is the 900-sq. ft. "Mobil Mart."

The typical design has four pump islands covered by rectangular canopy, with a 24 x 38-ft. building, centered partially under the new canopy. They are open 18 to 24 hours and sell prepackaged food sized for "individual consumption." Mobil says it "doesn't see itself as primarily in convenience stores. "We aren't out to compete with Southland. We're primarily in the business of selling gasoline," a spokesman says.

TEXACO

One of the first major oil companies to become involved directly with small con-

By Dan Larson
and Angel Abcede

venience stores, Texaco began its C-store building program in the late-1970s. Later its C-store plans were incorporated into its innovative System 2000 redesign program.

Now, Texaco's "Food Marts" average 150,000 gal./month. Of the directly supplied stores, about 25% are open 24 hours, while the remainder operate 16 hours/day. While it "does not encourage" deli-type food offerings, some of its jobbers do offer deli goods. The company says its jobbers operate some 1,600 Food Marts.

SHELL

Company disclosed very little information about its "Food Mart" operations, saying only that sales and gasoline volume figures were "proprietary."

Dealers are said to operate "just about all" of the Shell Food Marts now open.

EXXON

Probably the last of the major oil companies to jump into convenience stores [*NPN*—Jan. '86, p19], Exxon said it had 97 "Exxon Shops" in the Southeast and Gulf Coast at the end of last year. Now, it is believed there are some 120 such stores in operation. Costs are believed to run in the $500,000 per outlet range.

It claims that over half of the area in an Exxon shop is devoted to selling space and product lines include traditional fast-turn items plus packaged sandwiches, hot dogs and beer, where legal. Almost all are 24-hour operations.

ASHLAND/SUPERAMERICA

From the beginning very gung ho about C-stores, Ashland remains a step ahead of the field. The "newer" SuperAmerica stores are about 3,200 sq. ft. which makes them a bit larger than the industry average of around 2,000 sq. ft. Bigger size enables these stores to carry 3,000 or more products. SuperAmerica currently has 360 stores and is in the second year of a five-year program to add 50 new stores per year. Thus, it is looking at around 500 to 550 stores by 1988.

All of the stores are branded SuperAmerica and are direct-operated "except for a handful of jobber stores . . . less than 10, all told," says a spokesman.

Stores are predominantly 24-hour operations and are all in "good locations." "We have a lot of smaller stations with low gallonage where stores of this type wouldn't fit," according to a spokesman. Company refused to discuss gallonage or inside dollar sales. "Carefully guarded proprietary information," he says.

Stores run the gamut from basic groceries, to snacks, to bakeries and some even handle liquor. Some do "very well" on automotive and aftermarket products.

SuperAmerica has played around with some fast foods but it generally sticks to the basics. It got into C-stores in 1970 when it bought Northwest Refining, which had around 200 stores.

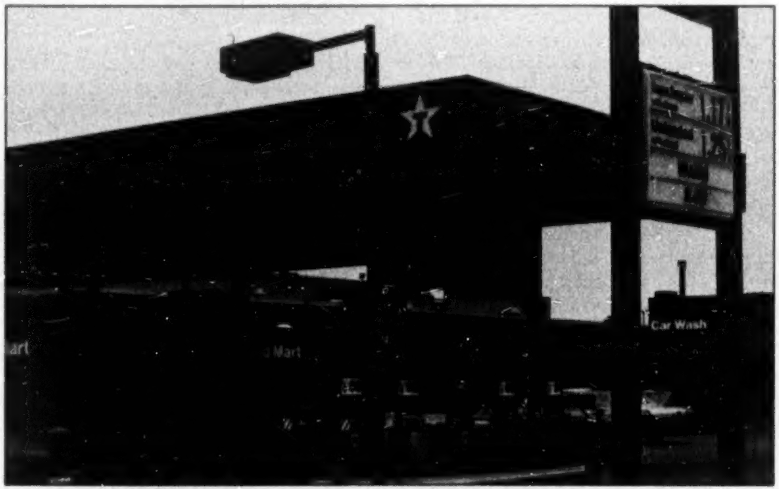
CONOCO

The company markets gasoline through Kayo Oil Co., which it owns. Kayo, with 500 stores in 24 states, markets under the Jet brand. Conoco bought Kayo in 1959, but Conoco had already begun selling cigarettes and considered its move into C-stores an "evolutionary process."

Conoco has 1,650 jobber-run C-stores. Gallonage and inside sales were not available. As for hours of operation, generally daytime hours with many running 24 hours.

DIAMOND SHAMROCK

The company has about 1,000 branded C-stores, 440 of which are direct-oper-



As the centerpiece of its five-year-old System 2000 image program, Texaco's Food Marts average 1,000 sq. ft., and are said to move some 150,000 gal./month in motor fuel.

Oil Companies C-store Boxscore

Major Oil Company	Number of C-stores	Number Direct-Operated	Average Size (sq. ft.)
Arco	450	—	2,000
Amoco	—	—	—
Chevron	1,100	300 (Chevron) 400 (Gulf)	900
Exxon	97	53	1,100
Mobil	—	—	900
Shell	400	25	1,200
Texaco	750	—	1,000
Ashland	360	350	3,200
Conoco	2,150	500	—
Marathon	455	—	2,000
Phillips	3,385	40	1,500
Sohio	—	—	—
Sun	668	316	1,800
Unocal	2,300	125	1,200

Secondary brands operate Marathon's C-stores.

ated. Jobbers and dealers operate 560 outlets. The company has been in the C-store business since the early 1970s, about 15 years in all.

The average size C-store ranges between 800 and 1,600 sq. ft., some complete with delis. Most stores are open 16 hours, while some are open 18 hours.

MARATHON

Marathon currently has 455 C-stores in operation. It added 15 in 1985 and picked up 60 more when it took over Globe Oil in the southeast [*NPN*—Feb. '86, p15]. It plans to add at least a dozen more stores to the Globe chain in 1986.

Marathon looks at C-stores as a viable growth operation. However, none of the stores are dealer or jobber-operated or fly the Marathon brand. All are direct-owned and direct-operated by the various secondary brands under Marathon, such as Cheker, Speedway, Globe and Port. Marathon says its policy is and always has been to retain the name of the secondary brand.

The stores range in size from 1,000 sq. ft. to 3,000 sq. ft., depending on the location and the market area potential. The majority, however, are in the 1,000-sq. ft. class. They sell a variety of products, including fast foods and wine/beer, where legal. Marathon would not release figures on gasoline volumes or "inside" sales volumes or dollars.

Hours of operations vary from market to market. Some are 24-hour stores, some 12-hour. Marathon got into the C-store business about eight to 10 years ago with the first unit in Terre Haute, Ind. Been growing slowly but steadily since then.

PHILLIPS

About 40 Phillips C-stores are company-operated while 3,345 are operated by jobbers. Though the jobbers have been into C-stores much longer, Phillips itself has been direct marketing through C-stores since 1983. Of the 40 stations, 33 are smaller island marketers, (750 sq. ft.), and seven are larger (2,000 to 2,400 sq. ft.).

The company averages $25,000 a month in inside sales, with most stores being open 24 hours. Company officials still consider direct-operated store program too "small and new" to make strong projections.

From the beginning, Ashland's SuperAmerica has taken a different approach to C-stores. With currently 360 stores, SuperAmerica is working to add 50 new stores per year.

SUN

Sun runs 316 "Stop-N-Go" C-stores and 20 Sun Marts. Of the Stop-N-Go stores, 161 have gasoline. All are company-operated. There are 332 franchised Stop-N-Gos. Generally, the stores have 1,800 sq. ft. of sales space.

The company has been in C-stores for 10 years, and today, the stores operate 24 hours, with most serving sandwiches, hot dogs and deli products.

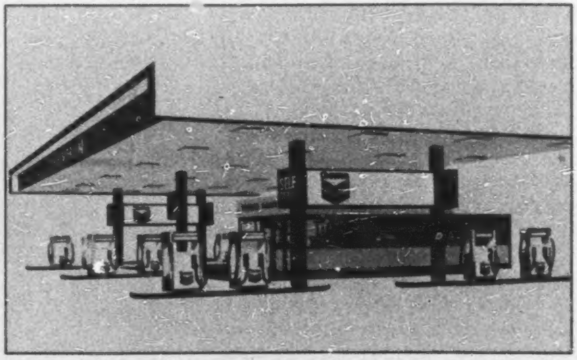
UNOCAL

The company has 2,300 C-stores in its East Region. Of these only 125 are direct-operated. The remainder are either jobber run or operated by dealers. The company built 12 new stores in 1985.

The stores range in size from 300 to 2,000 sq. ft., and they run from 18 to 24 hours.

They sell 3,000 items including dairy products, soft drinks, personal health care items, tobacco, fast food and automotive products.

The majority of Unocal's 2,300 East region C-stores are jobber-operated and range from 300 to 2,000 sq. ft.



Another latecomer to company-built C-stores, Chevron now has some 300 island marketer-type stores.

C4C 80-1

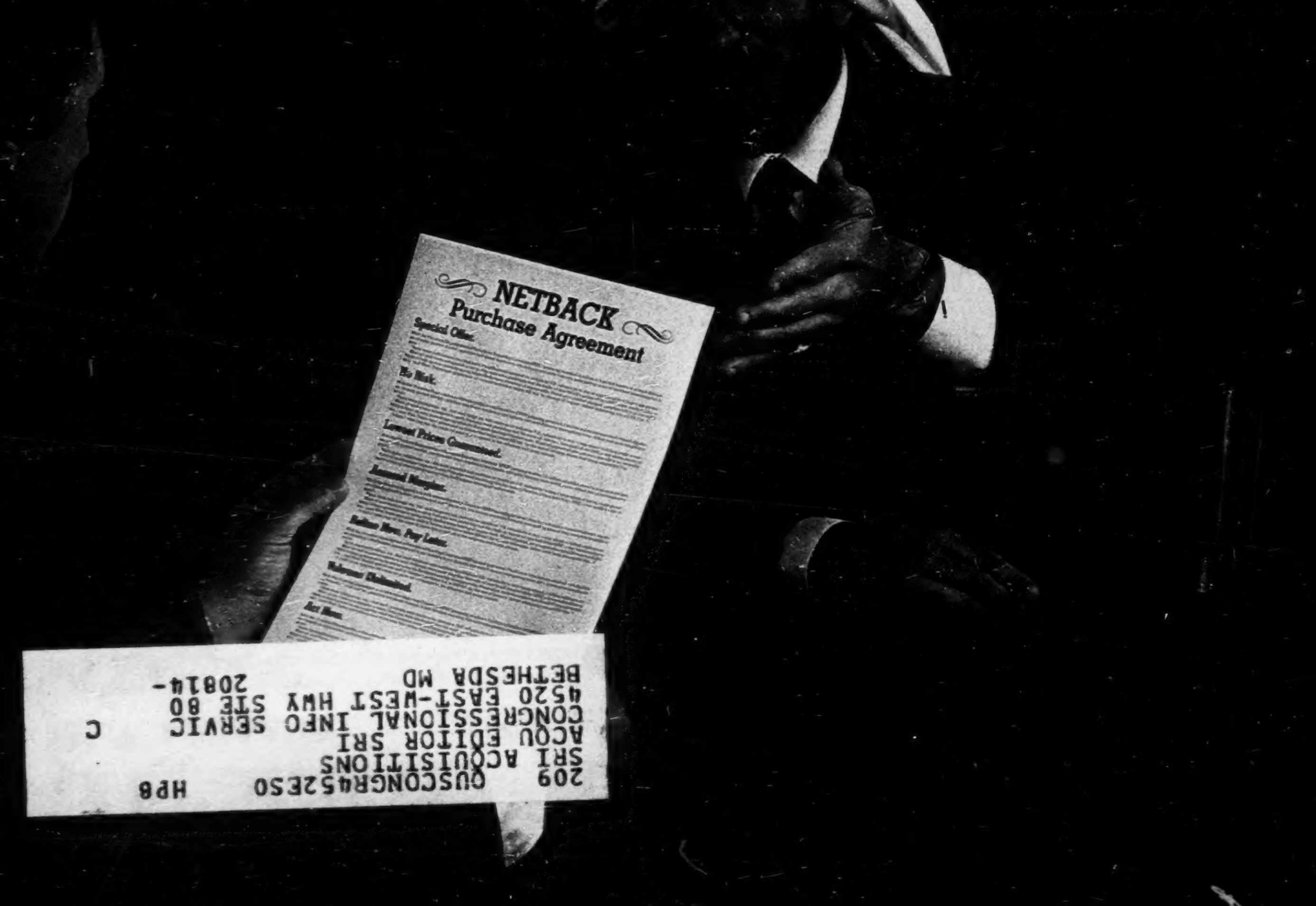
June 1986 $4.50

Why Venezuela Bought Into Citgo
Jobber's Expansion Targets Travel Centers
Gasoline Now at Two-thirds of C-stores

NPN

National Petroleum News

Netbacks:
An Offer Refiners Can't Refuse


NETBACK
Purchase Agreement
Special Offer
No Risk
Lowest Prices Guaranteed
Assured Margins
Buy Now, Pay Later
Volumes Unlimited

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NATIONAL PETROLEUM NEWS

JUNE 1986

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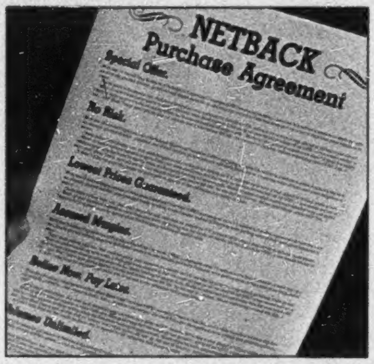


Netback pricing deals have quickly caught on in the oil industry as a means of locking in markets for producers and margins for refiners. Our in-depth report looks at how netbacks work and their affect on retail prices. **Page 34**

Venezuela has launched an aggressive campaign to not only preserve, but expand its share of the American oil market by selling directly to consumers through joint ownership deals. **Page 38**

Atlanta jobber Herb Ingersoll is moving in the opposite direction of many jobbers. While others consolidate, he's expanding with plans for a network of travel centers in the Southeast. **Page 44**

• TRENDS

Retail Price Wars: Playing An Old Game Under New Rules

When retail gasoline postings were slow to follow the sharp downturn in world crude oil prices earlier this year, some "experts" said that refiners and marketers were in such dire need of better profit margins that they wouldn't get involved in deep retail price-cutting or price wars this time.

Some independents who are nothing less than artists in playing the price-cutting game giggled over the reasoning of the "experts." At the same time, however, these indies say there are changing conditions which are bringing about new trends in retail pricing.

A combination of the oil companies removing certain credit incentives, high gasoline prices (as compared to the pre-1980's), and the virtual disappearance of "restoration moves" once practiced by the majors now restrains price-cutting to some degree, says one former cut-rater.

There was a time, this marketer points out, when all of the economics encouraged people like him to play the price-cutting game. This was back before the 1970s.

To begin with, he says, in those days a private-brand independent could often find refiner-suppliers willing to give him from 30 to 45 days to pay for gasoline he bought from them. If the marketer could speed such product through his pumps, he had it sold before he had to pay for it. While many at the time had never heard of such sophisticated terms as "cash flow," they did know that such an arrangement, whereby they could operate on somebody else's money, was a splendid one, indeed.

One way to quickly move the gasoline on through the pumps was to cut prices, this person adds, and the general level of retail prices for all products at the time enabled one to do this in a way to catch the customer's eye. With gasoline retailing at around 30¢ gal., a 2¢ or about a 7% reduction represented a real bargain. The 40¢ savings on a 20 gal. purchase might buy a jug of milk at prices back then.

A 2¢ gal. price cut when gasoline is a buck a gallon doesn't have the same impact on the customer, says this marketer, because the 40¢ savings won't buy nearly as much of something else. And the market, he adds, "won't let you have much more than that even if you could afford a larger reduction."

But the big thing that causes some to be more cautious and a little slower in cutting prices involves the lack of those "restoration moves" of the past.

It used to be, this indie says, that price wars and market restorations followed certain patterns and cycles. Some price-cutters, usually private-branders, would begin whittling away at prices until others followed and a market reached bottom. Then, usually, some major oil company would initiate an effort to restore prices to their normal level. Typically, unless some marketer really had a mad on, all would follow such a move for a day or two and then the downward trend cycle would begin again.

"You could usually count on these up and down cycles several times a year," says this indie. "Over a year's time, you would average out on pretty good margins, although you might be on bottom part of the time."

This situation has changed, too, he says. "Now, you see prices drifting down to near the cost of product and they stay down."

The changed conditions haven't stopped the price wars or price-cutting. Indeed, while it generally took them longer to do so, retail prices in many markets had pretty well caught up with the tumbling crude oil postings by early-May. Most majors, who earlier had moved down on their dealer tankwagon prices rather slowly, had for the most part dropped them to levels competitive with jobber wholesale rack prices. Branded dealer retail postings in some of the hot markets were reflecting this.

If the current pattern that this independent speaks of is followed, the retail prices may stay down for awhile.

The downward movement of retail prices this spring, while somewhat slow in developing, apparently proves that the industry will always have price-cutting when supply is plentiful. Although certain incentives to cut them have been removed or have changed, some marketers still see the need to shade their postings for such reasons as trying to gain more gallonage. *—Marvin Reid*

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

MARCH	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$ .983	$ .894	$ .981	$1.160
Regions:				
Northeast	1.058	.974	1.039	1.195
North Central	.919	.852	.927	1.107
South	.973	.886	.971	1.139
West	1.008	.902	1.010	1.194

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	5/2/86	5/3/85
Gasoline (total)	206,261	213,920
Gasoline (Unleaded)*	108,652	102,002
Jet Kerosine	39,220	34,996
Distillates	96,059	97,286
Residual	36,301	45,527

**Included in gasoline total.*
Source: American Petroleum Institute.

NPN

NATIONAL PETROLEUM NEWS JUNE 1986

Unstable Prices, Company Cutbacks Cloud Big Driving Season Forecast

Now that Memorial Day has ushered in the traditional summer driving season, gasoline marketers are looking at what probably will be the best demand period they've had in recent years.

It's not very likely the volumes will be high enough to compromise the peak year performances of 1978 and 1979. But with a few breaks here and there, they can be expected to be bubbling along at levels that will make everybody happy. Better than last year, a turn-around year, but not record-breaking. Seven out of 10 gal. will be unleaded.

All of the ingredients are out there now for fast action in the marketplaces. With all three grades selling below $1 gal., the low retails are luring many motorists back on the road. So are the cancelled vacation plans of many who otherwise would have gone overseas but have been frightened off by the terrorism abroad. The devalued American dollar is also an incentive to stay home this year.

American Automobile Assn. says it is anticipating at least a 5% increase in driving this summer. This, on top of the 6% that was registered last year.

But there are some worrisome factors out there, too.

- The industry is contracting and sweating out the collapse of the crude oil market. Two-thirds of the top 20 companies had minus signs on their first-quarter earnings reports. Three had losses, not as a result of bad marketing but as a result of restructuring and re-evaluation of inventories and assets.
- Capital spending programs are being cut drastically—by the hundreds of millions of dollars. Gross revenues were down 25% to 35% almost everywhere, weakening cash flows and operating funds.
- Many companies are trimming personnel rosters. Exxon sent shock waves through the industry by inviting 40,000 of its employees—about one-fourth of its global total—to take early retirement or resignation bonuses. Subsequently, Exxon said it was really only shooting for a 6,000-man reduction, but even that was an awesome figure. Amoco said it was cutting the work force of its production subsidiary by 15% or 1,500 people. Pennzoil said it was lopping off 600 people, or about 8% of its personnel. Marathon said it dropped 1,000 production personnel in the first quarter of this year. Chevron, Occidental and others also have announced prunings and early retirement programs.
- Wholesale and retail prices will probably be shaky all summer. They relate entirely to the continuing fall of international and domestic crude oil postings. Just about everything hinges on Saudi Arabia which still shows no true signs of relenting and reducing the flood of crude that it has been putting on the market. In April, crude abroad and at home was worth about $11 to $12 bbl., but there was still talk floating around that the bottom may go as low as $5 to $7 bbl., which would exert incredible pressures on oil companies and economies alike.
- The weaknesses of the crude oil markets and retail operations are having radiant effects throughout the economy. Banks with heavy loan schedules to producers and suppliers are worrying as cash flows dwindle and paybacks get hung up. Some states with oil economies, like Texas and Oklahoma, are already having boomerang effects. Jobbers, distributors and retailers are feeling cash flow pressures, too, and some are being squeezed dry.

There are a lot of goodies out there, too, however.

The first-quarter earnings reports, for example, showed that downstream operations turned in strong profits in January, February and March despite the plummeting wholesale/retail price structures.

Exxon, for example, made $160 million in domestic downstream profits in the first quarter which, when compared to last year's $13 million, reflected an increase of 1,131%. Phillips topped them all, with earnings of $98 million this year versus $2 million in 1985 for an increase of 4,800%. Amoco, which registered a 30% decrease in its first-quarter earnings had an 850% increase in worldwide downstream profits. Mobil had refining-marketing-transportation profits of $51 million in the U.S. this year versus a loss of $11 million in first-quarter 1985. Texaco earned $301 million worldwide in marketing compared with a loss of $27 million last year.

In the corporate picture, Exxon continued to dominate everything despite its displacement by *Fortune* magazine as the No. 1 corporate entity in the country (*Fortune* gave the nod to General Motors on the basis of 1985 revenues alone). Exxon netted $1.7 billion in the first quarter, up

(Continued on following page.)

Halbouty: A Lone Voice or Rising Tide?

Michel T. Halbouty, an outspoken independent Texas oil producer, thinks there's something wrong with oil executives' when they make sharp personnel and exploration cutbacks as a quick fix for current income problems.

"Where is the morality in business when CEOs don't give a damn for the human element any more?" he asked. Halbouty has been in the oil industry a long time and is now in his seventies, he said he didn't understand "the change in the morality of U.S. business."

More reasonable and humane, he said, would be to cut dividends instead. He calculated Chevron, Exxon and Mobil, to name just three, could make $6,520 million available "to maintain personnel and do some exploration" simply by cutting back, not eliminating, dividends. Chevron has 343 million shares of stock, Exxon 731 million, Mobil 408 million; total 1,482 million shares. Chevron pays $2.40 annual dividend, Exxon $3.60, Mobil $2.20. If they cut back by $1.40, $2, and $1, respectively, it would total $4.40, or $6,520 million on 1,482 million shares.

He said this would keep people working, maintain exploration, find new reserves, increase company assets, decrease imported oil, and enable companies to pay more dividends later.

Halbouty, the CEO of Michel T. Halbouty Energy Co., Houston, blamed the layoffs and cutbacks on "immoral" corporate raids which forced some oil companies to go heavily into debt. He added that the recent drop in oil prices "only accentuated it."

Driving Season Forecast, Continued

29% over 1985. Peer companies Mobil, Texaco and Chevron all had profit increases in the first quarter. From there on down and with the exception of Sun and Ashland, all the others had decreases vis a vis 1985. Marathon Petroleum, which has been making money for U.S. Steel Corp. since it was acquired three years ago, said it had a first-quarter operating loss of $133 million compared to a profit of $293 million last year.

Most of the companies pretty well agreed that if retail price levels continue in the 60¢ and 70¢ range for the duration of the second quarter, the first-half revenues and nets would be depressed everywhere.

On the volume side, American Petroleum Institute noted in April that gasoline demand had increased 6% in March alone and that the first quarter was 3.2% ahead of last year. Another promising factor was that demand in April was already in the 7 million b/d-plus range which is roughly a month ahead of where it has been in recent years.

Prices aren't expected to improve during the summer months barring a bottoming out and improvement in crude oil acquisition costs. There was some firming up of retails in May, immediately prior to the Memorial Day weekend. But how long they'll prevail is conjectural. All in all, however, few complaints have been heard about margins and in the absence of such carping and criticism it has to be assumed that most margins are relatively respectable.

An interesting look at what's ahead was offered by Conoco's president, Constantine S. Nicandros.

Nicandros, addressing an API meeting in Houston in mid-April, said about the only thing truly predictable at this time is that the future will be characterized by tight supplies and sharp price swings. He outlined three scenarios ranging from $5 bbl. crude up to $35 bbl. crude. He labelled them "production management," "capacity constrained" and "severe oscillation" periods. The important question, he said, "is not if, but when the next period of [supply] tightness will occur."

The great American public, meanwhile, is taking all this in stride. The *Wall Street Journal* reported in mid-April that the joint opinion poll it takes with NBC News indicates that three-fourths of the people believe the break they are getting in lower prices for gasoline and fuel oil will last less than a year. Nine out of 10 still think it is important to conserve energy and 76% believe the U.S. will have another crisis within 10 years. Of these, 36% emphasized that the probability of a crisis was "very likely."

First Quarter Earnings

	(millions of dollars)		
Company	**1st Qtr. 1986**	**1st Qtr. 1985**	**% Chng.**
Exxon	$1,710.0	$1,325.0	29.1%
Mobil	440.0	320.5	37.5
Chevron	356.0	354.0	0.6
Texaco	328.0	320.5	2.5
Shell	276.0	296.0	(6.8)
Amoco	331.0	473.0	(30.0)
Tenneco	124.0	(54.0)	—
Atl. Richfield	288.0	352.0	(18.2)
Standard Oil	253.0	343.0	(26.2)
Phillips	96.0	113.0	(15.0)
Sun	146.0	127.0	15.0
Unocal	70.2	180.7	(61.2)
Amer. Hess	(339.3)	37.2	—
Dia. Shamrock	(10.0)	59.1	—
Ashland (*)	39.0	14.0	178.6
Kerr-McGee	22.1	28.4	(22.2)
Pennzoil	42.3	57.4	(26.3)
Murphy	10.9	26.2	(58.4)
Am. Petrofina	(39.7)	2.5	—

(*)Second quarter, fiscal ends 9/30; for comparison, first quarter was $49 million vs. $26 million.

Downstream Earnings

	(millions of dollars)		
Company	**1st Qtr. 1986**	**1st Qtr. 1985**	**% Chng.**
Exxon			
Domestic	$160.0	$13.0	1,131%
Foreign	447.0	16.0	2,694
Mobil			
Domestic	51.0	(11.0)	—
Foreign	204.0	(3.0)	—
Chevron			
Domestic	37.0	(25.0)	—
Foreign	121.0	78.0	—
Texaco			
Worldwide	301.0	(27.0)	—
Shell			
Domestic	61.0	8.0	663
Amoco			
Worldwide	19.0	2.0	850
Atl. Richfield			
Domestic	89.0	49.0	87
Standard Oil			
Domestic	10.0	52.0	(80.0)
Phillips			
Domestic	98.0	2.0	4,800
Foreign	20.0	7.0	186
Sun			
Domestic	68.0	20.0	240
Foreign	(4)	1	—
Kerr-McGee			
Domestic	(2.4)	(13.7)	—
Amer. Hess			
Domestic	(374.4)	(19.2)	—
Ashland*	59.9	15.9	277

*Second quarter, fiscal ends 9/30.

Unleaded to Reach 70% Of Demand This Summer

The probability that seven out of every 10 gal. of gasoline sold this summer will be unleaded emphasizes how fast and how far the marketing industry has come in the federally mandated transition from the leaded to an unleaded gasoline economy.

American Petroleum Institute noted recently that unleaded sales already were at the 68% level in March. Thus, in little more than a decade, unleaded gasolines have gone from ground zero to absolute dominance of motor fuel marketing. The transition began in 1975.

In peak year 1978, gasoline consumption averaged 7,412,000 b/d with unleaded amounting to 34% or 2,421,000 b/d. Consumption declined to 6,539,000 b/d in 1982 but has been increasing modestly since then. In 1985, consumption averaged 6,815,000 b/d, with almost 65%, or 4,395,000 b/d being unleaded grades.

Leaded premium has all but vanished from the American scene and leaded regular appears to be only a couple of years away from the point when its share of market will be virtually insignificant—probably less than 10%.

Another interesting factor is that under federal regulations there really isn't much difference between the leaded and unleaded gasolines. Federal regulations now specify that lead content of regular fuels cannot exceed 0.1 grams/gal. The same regulations tolerate 0.05 grams/ lead in unleaded fuel. That means the mathematical difference is about 1/20th gram/gal.

Energy Information Administration, in a commentary on gasoline sales in its *Petroleum Supply Monthly*, had this to say:

"Unleaded gasoline sales grew in all regions in 1985.

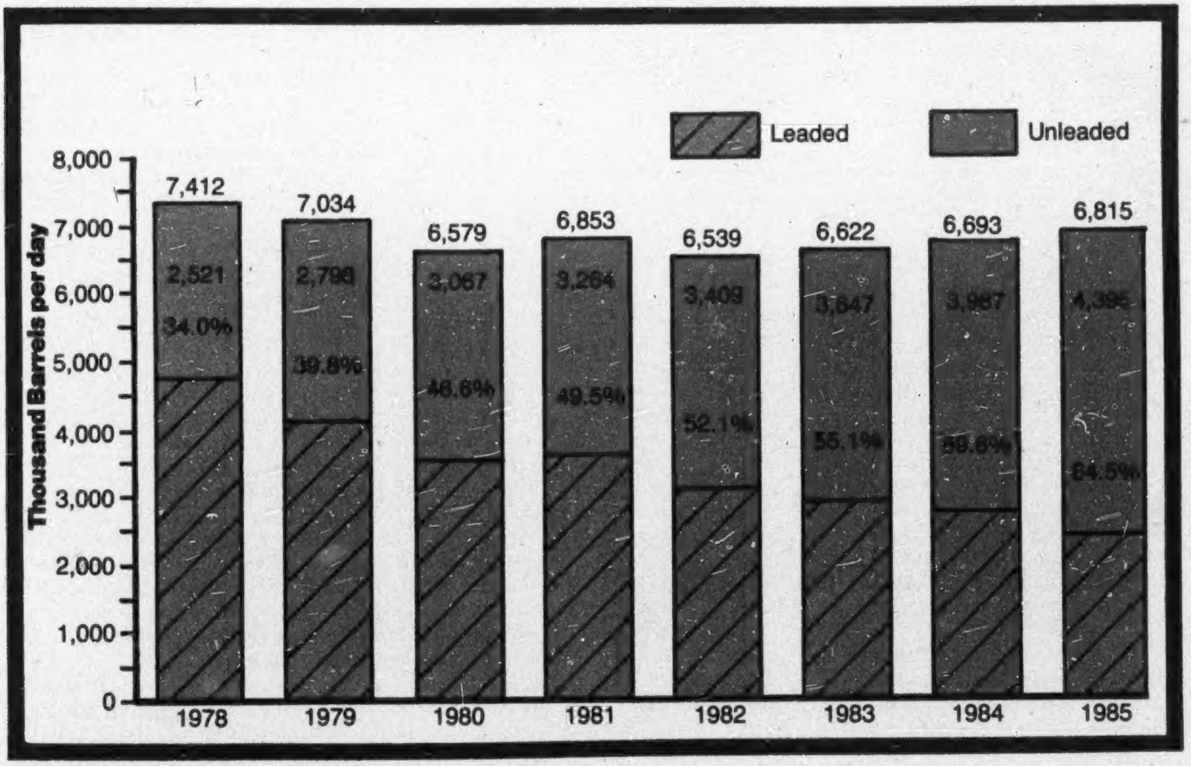
"Unleaded gasoline sales accounted for 72% of all gasoline sales on the West Coast, 71% on the East Coast, 64% on the Gulf Coast, and 60% in the Midwest. The Rocky Mountain area was the only region where unleaded accounted for less than half of the gasoline consumed.

"Gasohol consumption continued to increase in 1985, rising to 409,000 b/d, an increase of 16% from 1984. However, this increase was less than 27% between 1983 and 1984."

EIA also noted that most of the vehicles using leaded gasoline are the pre-1975 models. While these vehicles comprise an estimated 31 million cars and 14 million trucks (28% and 35% of vehicles in operation), scrappage rates increase with the age of the vehicles themselves.

Studies show that 50% of the vehicles for a model year are scrapped at 10.9 years for passenger cars and 12.0 years for light trucks, with 2% of the passenger cars and 24% of the light trucks surviving for 20 years, EIA says. **NPN**

Unleaded vs. Leaded Motor Gasoline. 1978–1985



Source: Energy Information Administration, Petroleum Supply Monthly, February 1986.

C-store Briefs

Two-thirds of Convenience Stores Are Now Selling Gasoline, Report Says

Having started from almost ground zero a decade ago, the growth of convenience stores selling gasoline has been phenomenal.

According to John Roscoe, a West Coast C-store chain operator and author of the annual "Dollars Per Day Survey of the Small Food Industry," nearly two-thirds (65%) of the estimated 58,000 convenience-type stores in the United States now market gasoline.

Roscoe's 1986 Dollars Per Day Survey, which is an analysis of the top nine publicly owned C-store chains to represent the industry as a whole, estimates that all C-type stores, including traditional stores and other food and gasoline combinations, sold 16,808,446,000 gallons in 1984 or 14.3% of the highway gasoline marketed in the U.S. The average store sold 1,227 gallons of gasoline per day.

Roscoe says that C-type stores increased their percentage of the national gasoline market by 1.87% in 1984, and he estimates that over 20% of the gasoline sold in the U.S. in 1985 was sold through C-stores. By contrast, he says, in 1976 only 1% of total U.S. gasoline volume was sold through convenience stores.

As for the nine chains cited in the survey, they sold 3,281,690,023 gallons in 1984, an increase of about 12% over the previous year. These nine accounted for 3.24% of total U.S. gasoline sales in 1984 through their 7,592 stores. Gasoline made up almost one-third (32.6%) of the total sales of the nine chains.

Ranking the nine firms in terms of pretax profits, Roscoe cited Shop & Go, Mango, Fla., as the most profitable for the fifth straight year. Following in descending order were Circle K, Phoenix, Ariz.; National Convenience Stores, Houston; Southland Corp. (7-Eleven), Dallas; Casey's General Stores, Des Moines, Ia.; Sunshine Jr. Stores, Panama City, Fla.; Munford Inc., Atlanta; Dairy Mart Convenience Stores, Enfield, Conn.; and Conna Corp., Louisville, Ky.

Cumberland Farms Inc., a privately-held eastern C-store chain not included in the Dollars Per Day survey, recently took over the mantel as the nation's number one independent gasoline marketer. Cumberland, which acquired most of Chevron's northeast marketing facilities in late-1985, boosted its annual gasoline volume to about the 2.65 billion gal. a year level at the take-over date. Cumberland now has about 3,860 outlets, but many are former Chevron and Gulf gasoline stations, at least temporarily.

Another study of the C-store business by the federal government, although limited to franchised outlets, tends to confirm Roscoe's findings. The government data (see Franchise Projections table below) projects the franchised C-store population will pass the 16,000-unit level by the end of 1986. Although the growth rate of franchised operations was somewhat slower than the year-ago projection (2.4% versus the forecast 4.4%), the government says this year's growth rate should more than double last year's to 5.3%. Even more interesting is the government's prediction that total franchised sales and services will increase by a whopping 13.3% in 1986 to $12,369,139,000.

As convenience store companies extend their penetration into the gasoline market, so, too, are petroleum marketers expanding their involvement in the C-store field. Eleven of the 14 largest integrated oil companies now supply 10,045 C-stores, with 2,109 of those being direct operations [*NPN*—May '86, p49]. These figures are lower than the actual numbers of convenience stores operated by the majors since three companies with extensive networks of C-stores declined to disclose the number of units they own.

Government Franchise Projections

	1986	1985	1984	Percent Changes '85-86	Percent Changes 1984-85
Total number of establishments:	16,120	15,314	14,960	5.3%	2.4%
Company-owned	9,204	8,796	8,507	4.6	3.4
Franchisee-owned	6,916	6,518	6,453	6.1	1.0
Total sales of products and services: ($000)	$12,369,139	$10,911,314	$10,292,508	13.3	6.0
Company-owned	7,731,205	6,685,410	6,304,904	15.6	6.0
Franchisee-owned	4,631,934	4,225,904	3,985,604	9.6	6.0

Distribution by Establishments—1984

Size Groups	Franchising Companies Number	Establishments Number	Establishments %	Sales ($000)	Sales %
1001 and Greater	4	11,558	77.3	$ 8,756,806	85.1
501 - 1000 151 - 500	7	2,912	19.5	1,276,145	12.4
51 - 150	5	359	2.4	192,613	1.9
11 - 50	5	112	0.7	56,834	0.5
0 - 10	3	19	0.1	10,110	0.1
Total	**24**	**14,960**	**100.0**	**10,292,508**	**100.0**

Source: "Franchising in The Economy, 1984-86," U.S. Department of Commerce, February 1986.

Mich. C-stores Form Trade Association

Convenience store owners and operators in Michigan formed an independent, not-for-profit association this spring to represent their industry.

Chris Kindsvatter, executive director of the Convenience Store Assn. of Michigan, says the association will represent the industry at public hearings, lobby the state general assembly on industry-related legislation, and provide educational seminars for C-store operators.

Kindsvatter says the association was formed because C-store owners felt like a "second child" to the state's food and drug industry and petroleum marketers group. Those organizations would not have the expertise in C-stores that CSAM would have, he says, and the National Assn. of C-Stores (NACS) can't focus on state issues.

There is no competition between CSAM and the other organizations, Kindsvatter says. In fact, many of its members are part of other associations. CSAM's first president, Jim Hinton, of Imperial Oil Co., is a member of the Michigan Petroleum Assn.

Kindsvatter estimates Michigan has between 250 and 300 companies operating C-stores. Of those companies, 30 (representing 500 stores) have joined CSAM during its first month of operation. CSAM also has 10 associate members, he says. Among the new members of CSAM are Southland, Stop-N-Go, Quality Dairy and Pri Mar, he says.

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'3rd Generation' Truck Stops Coming: NATSO
Why Small Jobber Likes 'Mini-centers'
Majors Urged to Rebuild TBA at Stations

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NATIONAL PETROLEUM NEWS

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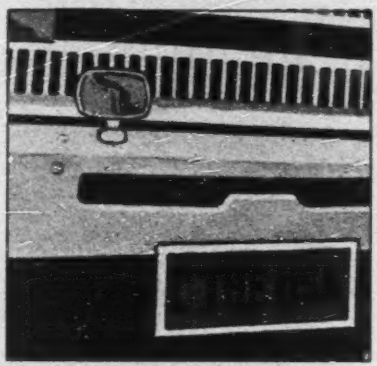
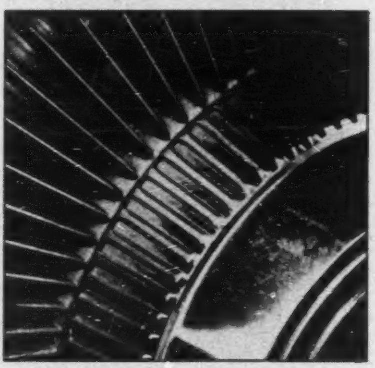


So far, 1986 has been marked by huge price swings and margins that went from thin to fat to thin again. With demand up 3%, oil company marketing staffs are cast as heros and the rallying cry is 'Boom Times Again.' **Page 34**



While oil company support of TBA has weakened overall the past few years, those in the business seem to be more enthusiastic than ever about the opportunities for service stations. **Page 38**

With nearly 11 billion gal./year of diesel fuel at stake, the operators of approximately 2,000 on-highway and 1,000 off-highway truck stops are in a sharply competitive business with an uncertain future. **Page 44**

NPN

NATIONAL PETROLEUM NEWS JULY 1986

Out on a Limb: Forecasts Peer Into 'Roller Coaster' 2nd Half of 1986

Updated forecasts by Federal Energy Administration and Independent Petroleum Assn. of America indicate that gasoline marketers may be in for some of their wildest roller coaster rides yet this summer and on into the wintry months of the fourth quarter.

Both forecasts agree that gasoline demand should be up this summer and throughout the rest of the year as well—roughly 200,000 b/d more than 1985. That's about 3%—not a spectacular increase in its own right but nevertheless more satisfying than the January forecasts which assumed that consumption would be generally flat this year and not appreciably better than the preceding 12 months.

Coupled with that, however, was a drastic, downward revision by the federal forecasters of their January projections on retail prices.

They are now assuming that the average retail price for all three grades of gasoline will be 29¢ gal. below last summer. Their average for the third and fourth quarters is 94¢ gal. compared with last January's projections of $1.14 and $1.11 gal.

They recognize they are on shaky grounds, however, and that the volatility of the marketplaces is such that anything can happen.

"At no time in recent history has the U.S. energy market been so difficult to forecast," EIA said in its most recent Short-Term Energy Outlook, dated April but issued in early-May.

Prices are changing daily and drastically, EIA continued, with "these changes not being determined by fundamental market forces but rather by production decisions of other countries, mainly Saudi Arabia," half a world away.

The crude oil market collapsed last winter and product prices spun downwards in headswimming fashion.

EIA said that it had assumed in its current forecast that crude prices would range between $10 to $20 bbl. The former relates to what now appears to be the bottoming-out level in March/April, and the latter parallels industry hopes that the upward trend would reach the high teens or even $20 bbl. by the end of this year.

Have a care, however, the government said. "Because of the uncertainty sur-

(Continued on following page.)

'Fantastic' Margins Add Luster To Routine API, SIGMA Meetings

Seldom in recent years have gasoline marketers and suppliers exhibited such warm collegiality and expansiveness as permeated the twin meetings of Society of Gasoline Marketers of America and American Petroleum Institute in Orlando, Fla., in mid-May.

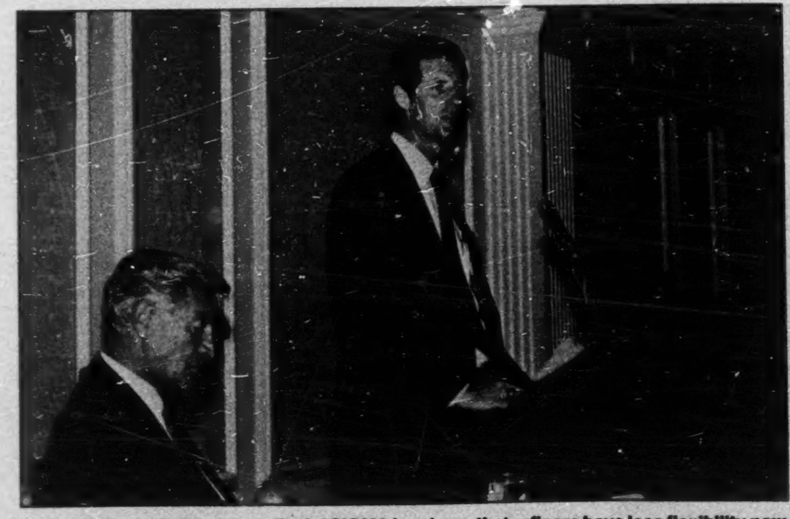
True, upstream, the suppliers were being devastated with billion-dollar cutbacks in capital spending programs and meat-axe curtailments of personnel rosters.

Downstream, it was a whole new world, even with crude and product prices plummeting as they never have before. Margins were good to fantastic in the first four months, according to corridor conversations—from 7¢ gal. on up to the low to mid-20s in some cases. The outlook was even better: Demand was up, supplies were abundant and the summer consumption curve was beginning to look like it might be at peak or near-peak levels in July and August.

Neither marketers nor suppliers were kidding themselves about how long it was going to last, however. Most expect the demand thirst to quench to projected levels—about 7 million b/d—by the end of the year. There was much hope that crude oil would continue to edge upward so that by year's end it would be around the $18 to $20 bbl. level for Texas intermediate and foreign spot. Not a benchmark by any means, it would be nevertheless much, much better than the $10 to $12 cellars it fell to in the first quarter.

The programs for the twin Florida meet-

(Continued on Page 27.)



Analyst S. Frank Culbertson tells the SIGMA luncheon that refiners have less flexibility now to adjust to market swings. Oil producer Roland Routhier listens at left.

Second Half '86 Forecasts, Continued . . .

rounding energy markets, more attention than usual should be given to alternative projections because the world oil price could easily move to the extremes of the range assumed in this analysis."

This is where the fun begins.

The median range projects the average retail price for all three grades at $1.10 gal. in the first quarter, 90¢ gal. in the second, and 94¢ gal. in the third and fourth for a year-long average of 94¢ gal.

In contrast, the low projection sees retails at 80¢ gal. in the second and third quarters and 88¢ gal. for the year-long average. The high side is $1.05 to $1.07 for a year-long average of $1.05.

The outlook for the first half of 1987 isn't much brighter.

EIA said it anticipates a median price of 95¢ to 97¢ gal. in the first half with possible lows of 83¢ to 87¢ and possible highs of $1.09 to $1.12.

Other products follow the same pattern. No. 2 heating oil (retail) isn't expected to get above $1 gal. all next winter. It is expected to average 81¢ gal. in 1986 (ex-taxes) compared with $1.05 in 1985, and not more than 85¢ gal. (ex-taxes) in first quarter 1987.

IPAA does not make price projections in its semi-annual forecasts.

It might be noted, however, that IPAA's spring revision of its 1986 forecast is a bit more optimistic than that of the federal government.

IPAA anticipates a gasoline demand growth of 3.6% in the third quarter and 4.5% in the fourth for a year-long gain of 3.4%. On the other hand, EIA projects an increase of 3.3% in the third quarter and 3.0% in the fourth for a year-long average of 2.6%.

Residual fuel growth—or nongrowth—is a small bone of contention between the forecasters. The government projects a continuation of the decline of recent years, while IPAA believes this erosion is over for the present and that demand may be up 5.0% for the year, mostly as a result of lower prices that are especially appealing to the industrial and power-generating sectors.

Distillate demand is expected to be up, too, more a result of the needs of the transportation sector than space-heating.

There is also disagreement on the matter of gasoline imports.

EIA says the gasoline imports will average 370,000 b/d in 1986, down slightly from 1985's 380,000 b/d. On the other hand, IPAA foresees gasoline imports of 438,000 b/d in 1986 versus 442,000 b/d in 1985, also a small decrease.

Federal Update: Demand Up, Prices Down

	1st Qtr		2nd Qtr		3rd Qtr		4th Qtr		1st Qtr	2nd Qtr	Full Year		%
	1986	1985	1986	1985	1986	1985	1986	1985	1987	1987	1986	1985	Change
SUPPLY/DEMAND (million b/d)													
Motor Gasoline (total)	6.63	6.49	7.14	6.98	7.19	6.96	7.03	6.82	6.63	7.14	7.00	6.82	2.6%
Leaded	2.12	2.41	2.09	2.56	1.98	2.40	1.81	2.31	1.62	1.66	2.00	2.42	(17.4)
Unleaded	4.51	4.09	5.04	4.42	5.21	4.56	5.22	4.56	5.01	5.48	5.00	4.39	13.9
Distillate Fuel Oil	3.35	3.28	2.82	2.65	2.72	2.56	3.08	2.96	3.22	2.86	2.99	2.86	4.5
Residual Fuel Oil	1.36	1.36	1.22	1.15	1.05	1.05	.99	1.22	1.35	1.11	1.15	1.19	(3.4)
Other Products	4.71	4.68	4.82	4.67	5.26	4.99	5.17	4.97	4.88	4.82	4.19	4.82	3.5
Total U.S.	16.05	15.81	15.99	15.45	16.22	15.56	16.27	15.96	16.22	16.00	16.13	15.70	2.7
PRICES ($ per gal.)*													
Motor Gasoline (Avg. All Grades)	1.10	1.14	.90	1.22	.94	1.22	.94	1.20	.95	.99	.97	1.20	(19.2)
Low Projection	.82	—	.82	—	.80	—	.80	—	.83	.87	.88	—	—
High Projection	.97	—	.97	—	1.05	—	1.07	—	1.08	1.12	1.05	—	—
No. 2 Diesel Oil (Retail)	1.13	1.14	.93	1.15	.93	1.12	.96	1.21	1.00	.99	.99	1.16	(14.7)
Low Projection	—	—	.86	—	.81	—	.84	—	.87	.89	.90	—	—
High Projection	—	—	1.00	—	1.03	—	1.08	—	1.13	1.12	1.06	—	—
No. 2 Heating Oil													
Wholesale	.64	.76	.48	.76	.48	.73	.52	.83	.56	.54	.53	.77	(31.2)
Low Projection	—	—	.38	—	.35	—	.40	—	.43	.44	.44	—	—
High Projection	—	—	.56	—	.59	—	.65	—	.69	.67	.61	—	—
Retail	.98	1.05	.76	1.03	.73	.98	.79	1.07	.85	.80	.81	1.05	(22.9)
Low Projection	—	—	.67	—	.59	—	.65	—	.70	.87	.72	—	—
High Projection	—	—	.83	—	.84	—	.93	—	1.00	.94	.89	—	—
No. 6 Residual (Avg. Sulfurs)	.46	.68	.33	.60	.35	.57	.39	.59	.41	.41	.38	.61	(37.7)
Low Projection	—	—	.22	—	.23	—	.28	—	.30	.32	.30	—	—
High Projection	—	—	.41	—	.45	—	.50	—	.53	.53	.46	—	—

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*Gasoline and No. 2 Diesel Oil include federal and state taxes; No. 2 Heating Oil and No. 6 Residual do not.

Source: Energy Information Administration, Short-Term Energy Outlook (April) May 1986.

IPAA Forecast for Principal Products

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Full Year 1986	Full Year 1985	% Change
SUPPLY/DEMAND (million b/d)							
Motor Gasoline (total)	6.67	7.19	7.22	7.13	7.05	6.82	3.4%
Distillate Fuel Oil	3.53	2.83	2.73	3.15	3.06	2.98	2.7
Residual Fuel Oil	1.37	1.20	1.15	1.29	1.25	1.19	5.0
Other Products	4.69	4.71	4.96	4.87	4.81	4.70	2.3
Total U.S.	16.264	15.921	16.047	16.434	16.166	15.696	3.0

N.B. Data for 1985 quarters, etc., are approximately the same as the 1985 data in the EIA table.

Source: IPAA Supply-Demand Reports—May 1986.

Seven Major Oil Companies' Personnel Cuts Since 1980

Depending on who you talk to, the restructuring of the seven largest U.S. oil companies since the beginning of this decade was either inevitable or a response to market conditions.

Since President Reagan decontrolled oil prices and supplies in January, 1981, the major oil companies have been reshaped and trimmed until they are vastly different from what they were then. And it's still going on today.

Does the latest round of personnel cutbacks and retirement offerings indicate restructuring is drawing to a close? That question won't be answered for several years yet.

NPN asked the seven largest oil companies what "restructuring" meant to them and how far they've reduced their payrolls.

AMOCO

It sees restructuring as much more than operating with fewer employees. Mainly, Amoco says, it means that each division stands alone competitively and profitably. "Each business unit, whether it is a service station, marketing area or product line, must stand on its own feet and cannot act as a 'drag' on the company as a whole," says an Amoco spokesman.

In 1985, Amoco realigned its marketing management structure to get its personnel "closer to the field." Five district and three regional offices were closed and the company went from three marketing areas to two zones. The effect was to remove an entire layer of management from marketing [*NPN*—June '85, p12]. Also of key importance at Amoco these days are company-wide guidelines on profitability and return on investment which are applied to properties and product lines alike.

In May, Amoco announced it was trimming some 400 jobs in its corporate division, mainly at its Chicago headquarters. This followed by a month an announced cutback of 1,500 personnel in the company's exploration and production division.

Personnel reductions have come mainly through attrition and early retirements, the company said.

ARCO

Arco claims it has been trimming back on all staffing levels for the past decade. Marketing staff levels were greatly affected twice in the past five years. First in 1982, when Arco "blew up" its credit card, many marketing division personnel in jobs related to credit card operations were either transferred or laid off.

Then, in 1985, Arco began its retreat from all marketing operations east of the Mississippi River [*NPN*—July '85, p36].

CHEVRON

In its move to trim operating costs, Chevron announced in April it planned to cut its corporate employment level by 10 to 15%. An inter-divisional task force was asked to devise plans by which each unit would cut its staff levels by those amounts. The plans are to be submitted to corporate level by this month for further evaluation.

EXXON

It began its largest staff reduction to date in April with details of a severance program mailed to some 40,500 domestic employees. By early June, 6,200 had agreed to quit or take early retirement, allowing the company to meet its initial goal for staff reductions. Exxon had said if it didn't reach its target, it would begin involuntary reductions. Company management stated it has begun to re-examine all of its operations in light of recent changes in the industry with an eye toward increasing efficiency and profitability.

MOBIL

In 1984, Mobil personnel increased by some 6,000 employees through its acquisition of Superior Oil Co. and several smaller companies. By year end 1985, many of these employees were no longer with Mobil, a company spokesman says. At this year's annual meeting, Mobil announced a wage and hiring freeze [*NPN*—June '86, p13]. The spokesman says the company has stated that these cost-cutting measures may not be all that are needed.

In late-May, Mobil said it was reducing the staff level of two of its international refining and marketing units by 70 people as part of its bid to cut worldwide staff 20%.

SHELL

The company says there have been no layoffs or reductions in personnel in 1986. However, "some personnel are being shifted" to other areas within the company, according to a spokesman. In addition, the exploration and drilling arms are being "looked at" as possible areas for reductions in personnel.

TEXACO

Texaco "absorbed" some 19,000 employees in 1984 with its acquisition of Getty Oil Co., giving Texaco its largest petroleum staff over the past six years with about 68,100 employees. The latest personnel count shows a reduction of 13,600 employees since then.

COMPANY	1986(A)	1980
Amoco Corp.		
Corporate (Dom.)	49,545	56,401
Amoco Oil Co.	10,215	13,864
Marketing	2,399	4,180
Atlantic Richfield Co.		
Corporate	1,300	53,362
Marketing	732	31,300
Chevron Corp.		
Corporate	61,000	40,200
Exxon Corp. (B)		
Corporate (Int.)	146,000	177,000
Exxon USA	26,000	29,000
Mobil Corp.		
Mobil Oil Co.	58,600	63,100
Royal Dutch/Shell		
Corporate (Int.)	142,000	161,000
Shell USA	35,167	36,596
Texaco Corp.		
Texaco USA	54,481	66,745

(A) Most 1986 figures are year-end 1985.
(B) Peak year 1981: Corp. 180,000; Exxon USA 31,000

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1986

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Ranking the Top Marketing Companies

	Total Assets		Total Sales		Net Income		Net Sales Ranking Among 500 U.S. Corporations	
	1985	1984	1985	1984	1985	1984	1985	1984
Exxon Corp.	1	1	1	1	1	1	2	1
Mobil Oil Corp.	2	2	2	2	6	6	3	3
Chevron	3	4	4	5	4	4	6	5
Texaco Inc.	4	3	3	3	5	5	7	11
Shell Oil Co. (a)	5	6	8	7	3	3	11	10
Amoco (b)	6	5	5	4	2	2	12	12
Tenneco Inc.	7	8	7	9	7	9	14	13
Atlantic Richfield Co.	8	7	6	6	7	10	17	17
Standard Oil (Ohio)	9	9	11	11	11	5	18	19
Phillips Petroleum Co.	10	10	9	8	9	7	20	20
Sun Co.	11	11	10	10	8	11	24	24
Unocal	12	12	12	12	10	8	31	27
Amerada-Hess	13	13	14	13	18	14	46	42
Diamond Shamrock Corp.	14	14	15	15	19	13	48	41
Ashland Inc. (c)	15	15	13	14	12	19	93	83
Kerr-McGee Corp.	16	16	16	16	13	17	117	111
Pennzoil Corp.	17	17	18	17	14	15	157	173
Murphy Oil	18	18	19	19	15	16	167	147
American Petrofina	19	19	17	18	16	18	169	167

(a) Wholly-owned by Royal Dutch/Shell Group.
(b) Name changed from Standard Oil (Indiana) 4/23/85.
(c) Fiscal year ended 9/30/85.
Source: *Fortune*, 500 largest U.S. corporations, April 28, 1986.

Changes, Changes and More Changes

Even though it had probably the best earnings' performance in its history, Exxon Corp., nevertheless, lost its title as the nation's No. 1 industrial corporation to General Motors Corp. in 1985.

This is not necessarily a world-shaking event inasmuch as these two companies have been engaging in a tug of war for that title for the past 10 to 12 years.

Fortune magazine, which ranks the nation's top 500 companies mostly on the basis of sales and gross revenues, noted that GM headed the list for 32 years. (By way of contrast, *NPN* uses employed assets as basis for ranking oil companies.)

Exxon unseated GM for the first time in 1974. GM regained the title in 1977, held it through 1978 and dropped it again to Exxon in 1979. Exxon held it tightly in its clasp through 1984.

Exxon's sales in 1985 were $86.7 billion, down 5% from the 1984 total of $90.9 billion and roughly 20% below the all-time high of $108 billion in 1981. GM, riding the crest of an unusual splurge in car buying, racked up $96.4 billion worth of sales in 1985, a record for the Michigan firm.

Profits were something else again. GM's profits sagged to $4.0 billion in 1985, down from $4.5 billion the preceding year. Exxon technically earned in excess of $6 billion for the first time in its history but it was compelled to set aside $2.1 billion to protect itself against an adverse court decision on overcharges. That reduced its stated earnings to $4.9 billion in 1985 which isn't exactly a bad bagful of money to take to the bank. Exxon's all-time high in earnings was in 1980 when it reported net profits of $5.7 billion.

Even though it slipped in the top 500 category, Exxon was No. 1 in everything else in the petroleum industry.

In other significant changes in the 1985 lineup, Chevron passed Texaco and moved up to No. 3, Shell slipped past Amoco to take the fifth position Tenneco leapfrogged Arco to become No. 7 in the hit parade. The Chevron upsweep was the biggest of all, moving from eleventh in 1984 to third in 1985, mostly on the basis of its purchase of Gulf Oil in 1984.

Although there were some shifts in the industry's pecking order, the 1985 rankings present a freeze frame of the petroleum market in a period of relatively economic stability, just prior to the sudden collapse of oil prices at the outset of 1986. Considering the current state of the market, there could be a dramatic shift in the 1986 company rankings.

Oil Company Annual

	Gross Sales-Operating Revenues (a)				Net Income	
	(add 000)		% Change		(add 000)	
	1985	1984	1985 vs. 1984	1985 vs. 1980	1985	1984
Amerada Hess Corp.	$ 7,722,542	$ 8,353,752	(7.1)	(2.9)	($ 260,409)	$ 170,455
American Petrofina	2,408,502	2,125,853	13.3	15.4	(10,163)	45,092
Amoco Corp.	28,873,000	29,008,000	.5	9.5	1,953,000	2,183,000
Ashland Oil, Inc.	7,891,223	8,252,564	(4.0)	(5.6)	146,722	92,187
Atlantic Richfield Co.	21,722,749	23,698,952	(8.4)	(11.2)	(201,574)	567,021
Chevron Corp.	41,742,000	44,216,000	(5.6)	(2.8)	1,547,000	1,534,000
Citgo Petroleum Corp. (b)	5,690,800	5,402,500	5.5	(26.9)	96,800	15,498
Conoco, Inc.	15,378,539	15,674,222	(1.9)	(17.6)	468,745	649,699
Crown Central Petroleum Corp.	1,473,253	1,609,605	(8.5)	—	4,098	504
Diamond Shamrock Corp.	4,101,800	4,483,200	(8.5)	243.0	(604,700)	242,200
Exxon Corp.	92,869,000	97,288,000	(4.5)	(9.9)	4,978,000	5,528,000
Kerr-McGee Corp.	3,345,000	3,537,000	(5.4)	(3.8)	137,000	65,000
Marathon Oil Corp.	10,462,000	10,185,000	2.8	21.8	1,274,000	1,274,000
Mobil Oil Corp.	60,609,000	60,474,000	2.1	1.8	1,040,000 (c)	1,268,000
Murphy Oil Corp.	2,197,638	2,169,000	1.3	11.7	79,704	96,167
Phillips Petroleum Corp.	15,800,000	15,746,000	.3	18.2	418,000	810,000
Shell Oil Corp.	20,477,000	20,898,000	(2.4)	3.2	1,656,000	1,722,000
Standard Oil Co. (Ohio)	13,816,000	12,251,000	12.7	20.3	308,000	1,488,000
Sun Co. Inc.	13,769,000	14,466,000	(4.7)	6.0	527,000	538,000
Tenneco Inc.	15,270,000	14,669,000	4.1	322.0	172,000	631,000
Texaco Inc.	46,297,000	47,334,000	(2.1)	(11.8)	1,233,000	306,0008(d)
Unocal Corp.	10,738,000	10,839,000	(.9)	7.6	325,000	700,000

(a) Excluding taxes

(b) Owned by The Southland Corp. Figures are for gasoline refining and supply segment only—includes refining, marketing and transportation operations of Citgo Petroleum Corp. and the Gasoline Supply Division.

(c) Net income figures exclude 1985 provisions for restructuring Montgomery Ward subsidiary, which contributed $506 million in after tax income.

(d) Before 1984 special charge. Amounts would be: net income, $1,074,000; net income as % of gross sales, 2.7%; net income as % of stockholder equity, 7.3.

	Product Imports b/d		Crude Imports b/d		Net Crude Production b/d			
					Domestic		Foreign	
	1985	1984	1985	1984	1985	1984	1985	1984
Amerada Hess Corp.	—	—	—	—	67,109	66,983	95,073	92,280
American Petrofina	—	—	—	—	18,548	18,838	—	—
Amoco Corp.	16,500	17,700	219,000	251,700	401,000	409,000	446,000	440,000
Ashland, Inc.	—	—	73,080	74,554	2,755	2,508	20,781	19,080
Atlantic Richfield Co.	—	—	—	—	647,700	654,700	56,000	51,100
Chevron Corp.	—	—	—	—	587,100	511,100	418,700	351,200
Citgo Petroleum Corp. (a)	—	—	—	—	—	—	—	—
Conoco Corp.	—	—	—	—	119,254	118,195	305,306	281,743
Crown Central Petroleum Corp.	—	—	—	—	2,933	3,249	—	—
Diamond Shamrock Corp.	—	—	—	—	15,200	14,700	51,300	58,600
Exxon Corp.	—	—	—	—	768,000	778,000	884,000	835,000
Kerr-McGee Corp.	—	—	—	—	21,230	19,500	26,261	23,000
Marathon Oil Corp.	—	—	137,900	171,700	160,200	163,300	115,100	111,200
Mobil Oil Corp.	—	—	—	—	—	—	—	—
Murphy Oil Corp.	—	—	17,882	16,960	13,610	15,072	41,484	41,637
Phillips Petroleum Corp.	—	—	—	—	154,000	136,000	127,000	132,000
Shell Oil Corp.	—	—	—	—	463,000	464,000	39,000	33,000
Standard Oil Co. (Ohio)	—	—	—	—	719,700	634,400	0	0
Sun Co. Inc.	—	—	—	—	195,100	194,100	30,000	29,400
Tenneco Inc.	—	—	—	—	93,311	89,050	38,368	38,392
Texaco Inc.	—	—	—	—	640,000	626,000	688,000	869,000
Unocal Corp.	—	—	—	—	154,000	152,000	97,000	83,000

(a) Owned by the Southland Corp. Figures are for gasoline refining and supply segment only—includes refining, marketing and transportation operations of Citgo Petroleum Corp. and the Gasoline Supply Division.

Reports for 1985

Net Income		Net Income % of Gross Sales		Total Assets				Net Income as % of average stockholder equity	
% Change				(add 000)		% Change			
1985 vs. 1984	1985 vs. 1980	1985	1984	1985	1984	1985 vs. 1984	1985 vs. 1980	1985	1984
—	—	—	2.0 %	$ 6,219,453	$ 6,352,832	(2.0%)	5.5%	—	6.6%
—	—	—	2.1	1,187,256	1,705,625	(30.1)	—	—	6.8
(10.6)	7.8	7.3 %	8.1	25,198,000	25,734,000	(2.1)	27.6	16.2 %	17.5
58.6	(66.2)	1.86	1.12	3,927,633	4,036,941	(2.5)	15.5	13.1	6.1
—	—	—	2.4	20,278,840	21,951,542	(7.6)	22.2	19.20	14.8
.9	(35.6)	3.5	3.3	38,899,000	45,404,000	(14.5)	75.5	10.2	10.6
625.0	(79.6)	1.7	.3	1,325,806	1,245,865	6.4	(76.0)	—	—
(27.7)	(54.4)	4.0	3.0	14,115,244	13,497,477	4.5	28.0	9.0	12.0
811.0	—	2.8	0.3	—	—	—	—	—	—
—	—	—	5.4	4,618,000	5,396,400	(14.8)	94.4	—	8.9
(9.9)	(11.8)	5.2	5.7	69,160,000	63,278,000	9.3	18.2	16.8	19.0
211.0	(24.7)	4.1	1.8	1,722,000	1,740,000	(.1)	(63.0)	—	—
—	327.0	12.1	12.5	10,074,000	9,949,000	1.2	99.8	—	—
(19.5)(c)	(62.9)	1.8 (c)	2.1	41,752,000	41,851,000	.2	27.6	11.2 (c)	9.3
(17.1)	(47.0)	3.6	4.4	2,660,825	2,685,069	(.9)	15.2	7.9	9.6
(48.1)	(60.1)	2.6	5.1	14,045,000	16,955,000	(17.1)	42.8	2.6	12.2
(4.2)	6.5	8.1	8.4	26,528,000	23,729,000	11.8	33.7	11.7	14.1
(79.2)	(83.0)	2.2	12.1	18,330,000	17,487,000	4.8	51.5	3.8	17.7
(1.6)	(27.0)	3.8	3.7	12,923,000	12,789,000	1.1	18.0	10.2	10.0
(73.0)	(81.7)	1.1	4.3	20,437,000	18,205,000	12.1	533.0	1.8	9.5
401.0	(53.4)	2.7	.6 (d)	37,703,000	37,744,000	(.1)	42.8	9.2	1.8(d)
(53.6)	(49.8)	3.0	6.5	10,797,000	10,203,000	5.8	59.4	8.9	6.9

Refinery Crude Runs b/d				Total domestic production as % of total domestic runs		Domestic refined petroleum product sales b/d	
Domestic		Foreign					
1985	1984	1985	1984	1985	1984	1985	1984
337,000	368,000	—	—	19.9 %	18.2%	417,000	440,000
117,277	112,860	—	—	11.2	16.7	166,129	142,449
839,000	828,000	60,000	69,000	47.8	49.4	911,000	860,000
297,458	301,813	—	—	0.9	0.8	359,633	374,308
353,200	340,900	—	—	183.4	192.1	432,100	423,600
1,358,100	1,319,000	597,800	717,500	43.2	38.7	1,683,000	1,556,000
225,000	—	—	—	—	—	—	—
343,109	322,262	159,393	146,766	34.0	36.0	425,646	411,765
—	—	—	—	—	—	—	—
124,838	116,928	—	—	53.3	61.1	149,653	143,059
1,054,000	1,021,000	1,849,000	2,199,000	72.9	76.1	1,123,000	1,149,000
121,800	116,045	—	—	17.4	21.7	—	—
402,700	401,100	49,500	47,400	39.8	40.7	470,500	466,800
—	—	—	—	—	—	789,000	708,000
76,622	84,204	19,907	13,223	17.8	17.9	86,238	92,071
292,000	288,000	—	—	52.7	47.2	575,000	507,000
890,000	897,000	—	—	52.0	75.8	963,000	903,000
604,200	410,800	0	0	119.0	154.0	604,200	410,800
391,700	400,300	62,200	61,700	50.0	49.0	528,800	516,400
98,688	92,692	0	0	94.6	96.1	146,112	126,235
838,000	946,000	1,010,000	1,079,000	76.4	66.1	1,156,000	1,180,000
374,000	351,000	—	—	41.2	43.3	420,000	402,000

Quarterly and Full-Year Earnings—1985 vs. 1984

(Add 000,000)

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Full-Year 1985	Full-Year 1984	% Change
Exxon Corp.	$1,325.0	$745.0	$995.0	$1,805.0	$4,870.0	$5,528.0	(11.9%)
Mobil Corp.	320.0	411.0	(116.0)	425.0	1,040.0	1,268.0	(18.0)
Texaco Inc.	320.0	305.0	301.0	307.0	1,233.0	306.0	300
Chevron Corp. (a)	354.0	347.0	245.0	601.0	1,547.0	1,534.0	—
Amoco Corp. (b)	473.0	600.0	490.0	390.0	1,953.0	2,183.0	(10.5)
Shell Oil Co.	296.0	337.0	365.0	652.0	1,650.0	1,772.0	(6.9)
Atlantic Richfield Co.	352.0	(1,099.0)	403.0	142.0	(202.0)	567.0	—
Tenneco, Inc.	63.0	164.0	(135.0)	81.0	172.0	631.0	(727.0)
Standard Oil Co. (Ohio)	343.0	390.0	346.0	(771.0)	308.0	1,488.0	(79.3)
Phillips Petroleum Co.	106.0	110.0	36.0	95.0	418.0	810.0	(48.4)
Sun Co.	127.0	146.0	(106.0)	414.0	527.0	538.0	(2.0)
Unocal, Inc. (c)	180.7	120.4	158.7	(134.8)	321.1	700.4	(53.6)
Amerada Hess Corp.	37.2	31.8	36.4	(365.8)	(260.5)	170.5	—
Diamond Shamrock Corp.	59.1	(764.0)	52.8	47.8	(604.7)	242.2	—
Ashland, Inc. (d)	25.5	60.3	60.3	46.4	146.7	(172.5)	—
Kerr-McGee Corp.	28.4	40.6	39.8	27.6	136.5	64.7	711
Pennzoil	57.4	52.6	44.4	(41.1)	113.2	130.5	(13.3)
Murphy Oil Corp.	20.2	23.8	18.6	17.2	79.9	96.2	(16.9)
American Petroleum Co.	(2.7)	12.9	10.2	(39.4)	(10.2)	45.1	—
Southland Corp.	1.0	88.7	79.3	43.5	212.5	160.3	32.6

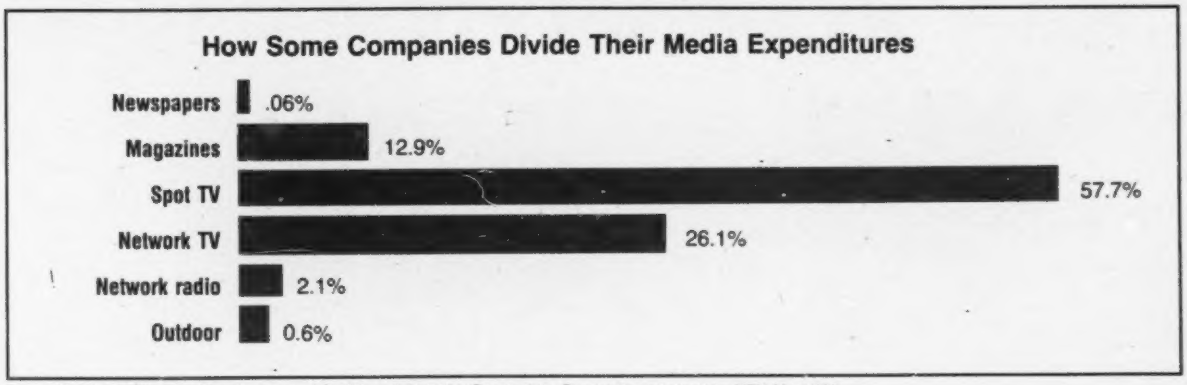
(a) Formerly Standard Oil Co. of California.
(b) Formerly Standard Oil Co. (Indiana).
(c) Formerly Union Oil Co. of California.
(d) Ashland's fiscal year ends Sept. 30 and the four quarters and full year have been re-stated to conform.

How They Fared in 1984 vs. 1983

(Add 000,000)

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Full-Year 1984	Full-Year 1983	% Change
Exxon Corp.	$1,475.0	$1,350.0	$1,275.0	$1,425.0	$5,525.0	$4,978.0	11.0%
Mobil Oil Corp.	380.0	366.0	238.0	286.0	1,270.0	1,503.0	(15.5)
Texaco Inc.	321.0	302.0	235.0	(552.0)	306.0	1,233.0	(75.2)
Standard Oil Co. (Indiana)	594.0	524.0	600.0	465.0	2,183.0	1,868.0	16.9
Standard Oil Co. (California)	378.0	380.0	342.0	434.0	1,534.0	1,590.0	(3.5)
Atlantic Richfield Co.	395.1	406.3	(519.0)	285.0	367.0	1,348.0	(63.4)
Shell Oil Co.	326.0	418.0	447.0	581.0	1,772.0	1,633.0	8.5
Gulf Oil Corp.	220.0	—	—	—	—	—	—
Tenneco Inc.	155.0	220.0	126.0	130.0	631.0	716.0	(11.9)
Standard Oil Co. (Ohio)	381.0	458.0	359.0	290.0	1,488.0	1,512.0	(1.6)
Phillips Petroleum Co.	193.0	231.0	217.0	169.0	810.0	721.0	12.3
Sun Co.	143.0	137.0	122.0	136.0	538.0	453.0	18.8
Getty Oil Co.	—	—	—	—	—	—	—
Union Oil Co. of California	180.1	185.7	181.2	153.4	700.4	625.9	11.9
Amerada Hess Corp.	88.4	45.5	40.6	(4.9)	170.5	205.3	(17.0)
Ashland, Inc.	5.0	36.2	(240.9)	25.9	(172.5)	102.8	—
Kerr-McGee Corp.	40.3	68.0	21.6	(35.0)	65.0	118.0	(44.9)
Diamond-Shamrock Corp.	59.5	64.3	61.6	56.8	242.2	(56.2)	—
Murphy Oil Corp.	26.3	23.6	25.3	20.9	96.1	127.4	(24.6)
American Petrofina Co.	10.3	15.7	1.8	17.3	45.1	55.3	(18.4)
Southland Corp.	41.2	58.5	59.9	30.7	160.3	131.8	21.6

How Oil Spends Its Ad Money


How Some Companies Divide Their Media Expenditures

Source: Broadcast Advertiser Reports, Inc., and Publishers Information Bureau data. Chart and percentages by *NPN*, May 1986.

How Some Oil Companies Split Their Budgets

(Add 000)

	Mobil		Exxon		Arco		Phillips	
	1985	1984	1985	1984	1985	1984	1985	1984
Newspaper Supplements	$ 362	$ 1,128	$ 137	$ 53	—	—	—	NA
Magazines	7,413	3,799	686	4,804	$ 123	$ 534	$ 2,232	NA
Spot TV	22,839	26,377	16,002	16,239	6,852	10,438	1,242	3,669
Network TV	12,865	11,321	—	—	NA	10,020	8,343	7,979
Network Radio	60	—	—	—	—	—	1,629	NA
Outdoor	347	44	157	839	54	1	9	NA
Totals	**$43,886**	**$42,699**	**$16,982**	**$21,935**	**$7,029**	**$20,993**	**$13,455**	**$11,648**

Source: Broadcast Advertiser Reports, Inc., and Publishers Information Bureau, May 1986.

Spot TV Spending

Company	1985 Spending (Add 000)	1984 Spending (Add 000)	% Change	Company	1985 Spending (Add 000)	1984 Spending (Add 000)	% Change
Exxon	$16,002	$16,237	− 1%	Standard Oil (Ohio)	2,757	615	+348%
Chevron (incl. Gulf)	15,516	12,433	+25	Atlantic Richfield	2,174	4,736	− 54
Shell	15,055	10,989	+37	Conoco	1,428	860	+ 34
Mobil	9,238	9,571	− 3	Amerada Hess	1,355	936	+ 55
Amoco	9,024	11,546	−22	Quaker State	1,311	2,844	− 54
Texaco (incl. Getty)	5,619	8,824	−36	Witco (Kendall & Amalie)	1,304	1,373	− 5
Pennzoil	4,948	4,556	+ 9	Phillips	1,242	3,669	− 66
Unocal	4,812	4,671	+ 3	Burmah Oil	958	2,768	− 65
Sun	3,720	2,794	+33	Southland	676	178	+280
Ashland	3,368	3,102	+ 9	Marathon Oil	481	447	+ 8

Source: Television Bureau of Advertising (TvB) from data supplied by Broadcast Advertisers Reports (BAR) in the top 75 markets, April 1986.

Network TV Spending

Company	1985 Spending (Add 000)	1984 Spending (Add 000)	% Change	Company	1985 Spending (Add 000)	1984 Spending (Add 000)	% Change
Phillips	$8,343	$7,979	+ 5%	Sun	2,328	6,491	−64%
Burmah (Castrol)	7,793	5,348	+ 46	General Motors (Goodwrench Motor Oil)	2,029	2,525	−20
Ashland	7,154	—	+ inf.	Unocal	1,525	1,909	−20
Quaker State	7,270	6,718	− 8	Shell	1,165	1,643	−29
Pennzoil	4,331	5,006	− 13	Witco (Kendall)	843	860	− 2
Texaco (incl. Getty)	3,139	5,870	− 47	Chevron (incl. Gulf)	436	369	+18
Mobil	3,036	187	+1,524				

Source: Television Bureau of Advertising (TvB) from data supplied by Broadcast Advertisers Reports (BAR) in the top 75 markets, April 1986.

Current Automotive Registrations

	Automobiles			Trucks and Buses			All Motor Vehicles			Motorcycles
State	Registered 1984	Estimated 1985	% Chng.	Registered 1984	Estimated 1985	% Chng.	Registered 1984	Estimated 1985	% Chng.	Estimated 1985
Alabama	2,266,571	2,274,000	0.3	935,484	961,000	2.7	3,202,055	3,235,000	1.0	69,000
Alaska	227,375	236,000	3.8	140,233	146,000	4.1	367,608	382,000	3.9	10,000
Arizona	1,504,204	1,500,000	−0.3	606,675	619,000	2.0	2,110,879	2,119,000	0.4	79,000
Arkansas	981,174	991,000	1.0	521,888	529,000	1.4	1,503,062	1,520,000	1.1	29,000
California	14,095,912	14,274,000	1.3	3,869,091	4,010,000	3.6	17,965,003	18,284,000	1.8	715,000
Colorado	2,007,519	2,078,000	3.5	746,788	773,000	3.5	2,754,307	2,851,000	3.5	113,000
Connecticut	2,207,317	2,263,000	2.5	158,184	159,000	0.5	2,365,501	2,422,000	2.4	77,000
Delaware	366,024	379,000	3.5	93,372	99,000	6.0	459,396	478,000	4.0	10,000
Dist. of Col.	212,545	214,000	0.7	18,707	19,000	1.6	231,252	233,000	0.8	5,000
Florida	7,552,367	7,886,000	4.4	1,841,808	1,975,000	7.2	9,394,175	9,861,000	5.0	244,000
Georgia	2,890,291	2,979,000	3.1	1,570,108	1,627,000	3.6	4,460,399	4,606,000	3.3	113,000
Hawaii	555,299	578,000	4.1	82,723	84,000	1.5	638,022	662,000	3.8	18,000
Idaho	546,519	562,000	2.8	393,587	409,000	3.9	940,106	971,000	3.3	49,000
Illinois	6,069,551	6,211,000	2.3	1,528,687	1,558,000	1.9	7,598,238	7,769,000	2.2	219,000
Indiana	2,933,754	3,014,000	2.7	1,016,564	1,032,000	1.5	3,950,318	4,046,000	2.4	135,000
Iowa	1,743,951	1,743,000	−0.1	699,085	705,000	0.8	2,443,036	2,448,000	0.2	255,000
Kansas	1,456,286	1,476,000	1.4	665,507	681,000	2.3	2,121,793	2,157,000	1.7	101,000
Kentucky	1,772,287	1,769,000	−0.2	817,767	822,000	0.5	2,590,054	2,591,000	0.0	50,000
Louisiana	2,048,123	2,074,000	1.3	910,044	941,000	3.4	2,958,167	3,015,000	1.9	58,000
Maine	584,018	604,000	3.4	215,736	222,000	2.9	799,754	826,000	3.3	48,000
Maryland	2,668,985	2,769,000	3.7	524,386	553,000	5.5	3,193,371	3,322,000	4.0	70,000
Massachusetts	3,321,357	3,332,000	0.3	466,839	470,000	0.7	3,788,196	3,802,000	0.4	102,000
Michigan	5,071,361	5,279,000	4.1	1,297,156	1,382,000	6.5	6,368,517	6,661,000	4.6	235,000
Minnesota	2,276,192	2,274,000	−0.1	691,458	696,000	0.7	2,967,650	2,970,000	0.1	166,000
Mississippi	1,060,940	1,047,000	−1.3	382,695	396,000	3.5	1,443,635	1,443,000	0.0	25,000
Missouri	2,595,214	2,626,000	1.2	925,950	949,000	2.5	3,521,164	3,575,000	1.5	85,000
Montana	405,716	396,000	−2.4	279,146	281,000	0.7	684,862	677,000	−1.1	29,000
Nebraska	829,583	833,000	0.4	427,914	430,000	0.5	1,257,497	1,263,000	0.4	45,000
Nevada	534,912	540,000	1.0	209,770	215,000	2.5	744,682	755,000	1.4	20,000
New Hampshire	742,456	773,000	4.1	127,608	132,000	3.4	870,064	905,000	4.0	58,000
New Jersey	4,402,243	4,412,000	0.2	494,160	495,000	0.2	4,896,403	4,907,000	0.2	127,000
New Mexico	771,476	760,000	−1.5	448,168	457,000	2.0	1,219,644	1,217,000	−0.2	47,000
New York	7,563,584	7,774,000	2.8	1,080,866	1,158,000	7.1	8,644,450	8,932,000	3.3	217,000
North Carolina	3,183,688	3,190,000	0.2	1,185,117	1,227,000	3.5	4,368,805	4,417,000	1.1	68,000
North Dakota	414,510	434,000	4.7	276,768	278,000	0.4	691,278	712,000	3.0	31,000
Ohio	6,524,410	6,621,000	1.5	1,369,367	1,396,000	1.9	7,893,777	8,017,000	1.6	271,000
Oklahoma	1,758,481	1,744,000	−0.8	1,022,430	1,025,000	0.3	2,780,911	2,769,000	−0.4	105,000
Oregon	1,554,913	1,599,000	2.8	627,612	629,000	0.2	2,182,525	2,228,000	2.1	83,000
Pennsylvania	5,805,361	5,867,000	1.1	1,275,910	1,293,000	1.3	7,081,271	7,160,000	1.1	226,000
Rhode Island	538,307	554,000	2.9	84,068	88,000	4.7	622,375	642,000	3.2	25,000
South Carolina	1,626,800	1,644,000	1.1	501,546	506,000	0.9	2,128,346	2,150,000	1.0	38,000
South Dakota	405,626	411,000	1.3	237,511	240,000	1.0	643,137	651,000	1.2	38,000
Tennessee	2,822,315	2,864,000	1.5	746,346	748,000	0.2	3,568,661	3,612,000	1.2	103,000
Texas	8,417,227	8,681,000	3.1	3,754,466	3,961,000	5.5	12,171,693	12,642,000	3.9	307,000
Utah	748,483	759,000	1.4	341,932	344,000	0.6	1,090,415	1,103,000	1.2	57,000
Vermont	287,838	293,000	1.8	89,424	94,000	5.1	377,262	387,000	2.6	22,000
Virginia	3,450,039	3,571,000	3.5	597,016	627,000	5.0	4,047,055	4,198,000	3.7	82,000
Washington	2,420,225	2,517,000	4.0	1,010,127	1,059,000	4.8	3,430,352	3,576,000	4.2	142,000
West Virginia	966,099	1,022,000	5.8	411,713	429,000	4.2	1,377,812	1,451,000	5.3	35,000
Wisconsin	2,386,500	2,382,000	−0.2	707,956	739,000	4.4	3,094,456	3,121,000	0.9	194,000
Wyoming	290,972	291,000	0.0	203,307	205,000	0.8	494,279	496,000	0.3	22,000
TOTAL	127,866,900	130,364,000	2.0	38,630,770	39,873,000	3.2	166,497,670	170,237,000	2.2	5,472,000

Source: Federal Highway Administration, Table SS84-3, published October 1985.

Estimated Licensed Drivers, By Sex and States, 1984 and 1985

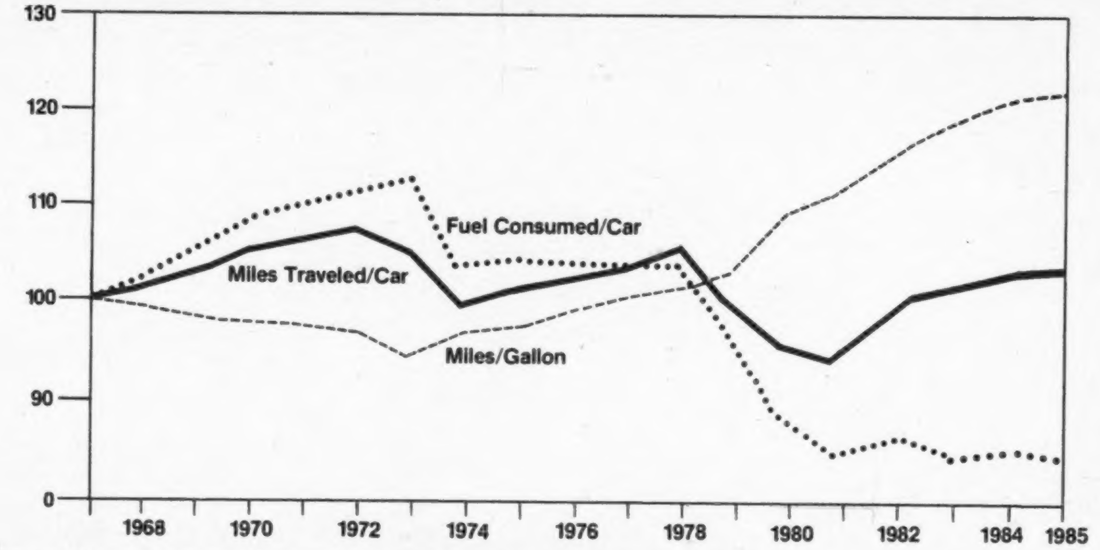
(Add 000)

	1984 (Actual)				1985 (Estimated)		
State	Male	Female	Total	% Male Drivers	Male	Female	Total
Alabama	1,285	1,187	2,473	51.98	1,324	1,223	2,547
Alaska	173	132	305	56.60	177	136	313
Arizona	1,221	1,035	2,257	54.12	1,263	1,071	2,334
Arkansas	803	812	1,674	51.52	877	825	1,702
California	8,942	8,005	16,947	52.77	9,091	8,144	17,235
Colorado	1,187	1,082	2,269	52.32	1,206	1,099	2,305
Connecticut	1,207	1,130	2,337	51.65	1,243	1,164	2,407
Delaware	225	216	440	51.03	227	217	444
Dist. of Col.	205	169	374	54.88	207	170	377
Florida	4,222	3,964	8,186	51.57	4,283	4,026	8,309
Georgia	2,005	1,897	3,901	51.39	2,065	1,953	4,018
Hawaii	321	262	583	55.08	326	265	591
Idaho	349	321	669	52.09	356	327	683
Illinois	3,354	3,332	6,685	50.16	3,375	3,357	6,732
Indiana	1,823	1,752	3,574	51.00	1,843	1,770	3,613
Iowa	951	976	1,927	49.34	954	979	1,933
Kansas	854	837	1,692	50.50	860	842	1,702
Kentucky	1,183	1,066	2,249	52.61	1,204	1,085	2,289
Louisiana	1,511	1,319	2,830	53.39	1,542	1,347	2,889
Maine	402	388	791	50.88	410	395	805
Maryland	1,478	1,383	2,861	51.66	1,511	1,413	2,924
Massachusetts	1,986	1,846	3,832	51.83	2,020	1,877	3,897
Michigan	3,337	3,055	6,392	52.20	3,363	3,080	6,443
Minnesota	1,247	1,150	2,397	52.02	1,257	1,159	2,416
Mississippi	952	834	1,786	53.29	961	843	1,804
Missouri	1,721	1,634	3,354	51.29	1,736	1,648	3,384
Montana	260	214	474	54.82	259	213	472
Nebraska	569	539	1,108	51.34	575	545	1,120
Nevada	365	316	681	53.54	369	321	690
New Hampshire	369	346	716	51.60	379	355	734
New Jersey	2,992	2,688	5,680	52.68	3,073	2,760	5,833
New Mexico	421	389	810	52.00	438	404	842
New York	5,274	4,442	9,716	54.28	5,342	4,500	9,842
North Carolina	2,073	1,976	4,049	51.20	2,108	2,010	4,118
North Dakota	225	209	434	51.86	227	210	437
Ohio	3,820	3,569	7,389	51.70	3,784	3,539	7,323
Oklahoma	1,117	1,008	2,206	50.66	1,139	1,109	2,248
Oregon	1,094	985	2,079	52.61	1,105	995	2,100
Pennsylvania	3,966	3,504	7,470	53.09	4,203	3,715	7,918
Rhode Island	312	299	611	51.06	315	301	616
South Carolina	1,076	1,024	2,100	51.24	1,101	1,047	2,148
South Dakota	251	236	487	51.57	253	237	490
Tennessee	1,521	1,457	2,978	51.09	1,546	1,480	3,026
Texas	5,729	5,126	10,856	52.78	5,900	5,282	11,182
Utah	471	458	929	50.67	474	462	936
Vermont	195	176	371	52.54	199	179	378
Virginia	1,900	1,874	3,773	50.34	1,932	1,905	3,837
Washington	1,557	1,416	2,973	52.39	1,598	1,452	3,050
West Virginia	619	590	1,208	51.20	628	598	1,226
Wisconsin	1,637	1,510	3,148	52.02	1,663	1,534	3,197
Wyoming	195	165	360	54.20	198	167	365
Total	**81,012**	**74,379**	**155,391**	**52.13**	**82,489**	**75,735**	**158,224**
Percent Change From Prior Year	**0.3**	**1.3**	**0.8**	**—**	**1.8**	**1.8**	**1.8**

Source: Federal Highway Administration, Table SS84-85, published October 1985.

Passenger Car Efficiency Index

(Index: 1967 = 100)



Source: Energy Information Administration, Monthly Energy Review, for 1967 through 1984; *NPN* estimates and projections for 1985.

Passenger Car Energy Indicators—1967-1985

(1967 = 100)

	Passenger Cars Only						Passenger Cars (a)		
	Avg. Fuel Used per Car		Avg. Miles Traveled per Car		Avg. Miles per gal. of Fuel				
Year	Gal.	Index	Miles	Index	Miles	Index	Number Registered (000)	Gasoline Consumed (000,000 gal.)	Miles Traveled (000,000)
1985 (b)	580	—	9,900	—	17.00	—	135,836	74,500	1,300,000
1984	579	84.6	9,809	102.9	16.94	121.6	133,347	74,282	1,266,265
1983	578	84.5	9,654	101.3	16.70	119.9	131,723	73,156	1,229,697
1982	587	85.8	9,533	100.0	16.25	116.7	129,500	72,848	1,191,623
1981	579	84.6	9,002	94.4	15.54	111.6	129,123	71,718	1,124,843
1980	603	88.2	9,135	95.8	15.15	108.8	127,448	73,375	1,129,887
1979	664	97.1	9,485	99.5	14.29	102.6	125,750	80,233	1,162,528
1978	715	104.5	10,046	105.4	14.06	100.9	121,717	83,775	1,194,287
1977	706	103.2	9,839	103.2	13.94	100.1	118,711	80,677	1,141,166
1976	711	103.9	9,763	102.4	13.72	98.5	115,170	78,847	1,098,147
1975	712	104.1	9,634	101.1	13.53	97.1	111,679	76,457	1,050,472
1974	704	102.9	9,448	99.1	13.43	96.4	109,823	74,217	1,013,068
1973	763	111.5	9,992	104.8	13.10	94.0	106,119	78,011	1,036,455
1972	755	110.4	10,184	106.9	13.49	96.8	100,658	73,463	1,003,498
1971	746	109.1	10,121	106.2	13.57	97.4	96,144	69,514	954,155
1970	735	107.5	9,978	104.7	13.57	97.4	92,095	65,784	900,992
1967	684	100.0	9,531	100.0	13.93	100.0	82,367	55,110	774,203

(a) These totals include motorcycles.

(b) Estimates by *NPN* based on Federal Highway Administration preliminary data.

Source: Energy Information Administration Monthly Energy Review; Federal Highway Administration, Table SS84-15 (VM-1)

Mileage and Consumption Data—1984

	Passenger Vehicles						
	Passenger Cars	Motorcycles	All Personal Passenger Vehicles	Buses	All Passenger Vehicles	Trucks and Combinations	All Motor Vehicles
Fuel consumed (million gal.)	74,042	240	74,282	1,141	75,422	43,314	118,736
Average per vehicle (gal.)	579	44	557	1,954	563	1,138	689
Average miles per gal.	16.94	50.00	17.05	5.90	16.88	10.25	14.46
Vehicles registered (thousands)	127,867	5,480	133,347	583,671	133,930	38,047	171,977
Average miles traveled	9,089	2,190	9,496	11,529	9,505	11,664	9,969
Average miles traveled (millions):							
Main rural roads	—	—	299,570	1,567	301,137	128,076	429,213
Local rural roads	—	—	193,096	1,868	194,964	94,672	289,636
Urban streets	—	—	773,599	3,294	776,893	221,026	997,919
Total travel in 1984	**1,254,265**	**12,000**	**1,266,265**	**6,729**	**1,272,994**	**443,774**	**1,716,768**
Total travel in 1983	**1,217,697**	**12,000**	**1,229,697**	**6,724**	**1,236,421**	**421,126**	**1,657,547**

Source: Federal Highway Administration, Table SS84-15 (VM-1), October 1985.

1984 Relationships by Population and Drivers

State	Resident Population (1,000)	Licensed Drivers per 1,000 Resident Population	Registered Motor Vehicles per 1,000 Resident Population	Gal. of Fuel per Vehicle	Miles per Gal.	Annual Miles per Vehicle	Vehicle Miles per Licensed Driver
Alabama	3,990	620	803	684	15.05	10,293	13,329
Alaska	500	610	735	752	12.99	9,763	9,322
Arizona	3,053	739	691	798	12.24	9,765	9,133
Arkansas	2,349	713	640	933	11.85	11,058	9,926
California	25,623	661	701	699	15.64	10,939	11,597
Colorado	3,178	714	867	581	15.36	8,927	10,835
Connecticut	3,154	741	750	607	14.67	8,909	9,019
Delaware	613	718	749	779	14.37	11,184	11,669
Dist. of Col.	623	601	371	838	16.58	13,898	8,589
Florida	10,976	746	856	611	14.89	9,098	10,441
Georgia	5,837	668	764	816	13.87	11,318	12,940
Hawaii	1,039	562	614	525	19.42	10,195	11,149
Idaho	1,001	668	939	540	15.31	8,262	11,609
Illinois	11,511	581	660	650	14.15	9,200	10,457
Indiana	5,498	650	719	789	13.18	10,397	11,491
Iowa	2,910	662	840	652	12.88	8,389	10,636
Kansas	2,438	694	870	671	13.15	8,821	11,064
Kentucky	3,723	604	696	783	13.78	10,791	12,427
Louisiana	4,462	634	663	832	12.84	10,678	11,160
Maine	1,156	684	692	767	15.23	11,684	11,819
Maryland	4,349	658	734	674	14.73	9,927	11,081
Massachusetts	5,798	661	653	665	15.30	10,172	10,057
Michigan	9,075	704	702	666	14.96	9,966	9,929
Minnesota	4,162	576	713	732	14.65	10,724	13,276
Mississippi	2,598	688	556	957	13.34	12,774	10,324
Missouri	5,008	670	703	827	13.23	10,943	11,487
Montana	824	575	831	779	13.85	10,784	15,597
Nebraska	1,606	690	783	728	13.07	9,517	10,805
Nevada	911	748	817	748	13.16	9,845	10,762
New Hampshire	977	732	891	536	15.64	8,383	10,191
New Jersey	7,515	756	652	755	14.15	10,683	9,209
New Mexico	1,424	569	856	740	13.78	10,193	15,356
New York	17,735	548	487	612	16.49	10,095	8,982
North Carolina	6,165	657	709	773	14.26	11,028	11,898
North Dakota	686	633	1,008	624	12.46	7,778	12,384
Ohio	10,752	687	734	671	14.13	9,487	10,135
Oklahoma	3,298	669	843	760	14.65	11,140	14,046
Oregon	2,674	777	816	655	14.64	9,595	10,074
Pennsylvania	11,901	628	595	715	14.68	10,492	9,946
Rhode Island	962	635	647	634	13.42	8,515	8,678
South Carolina	3,300	636	645	864	14.13	12,202	12,364
South Dakota	706	689	911	670	14.87	9,952	13,154
Tennessee	4,717	631	757	812	12.61	10,234	12,264
Texas	15,989	679	761	801	14.13	11,316	12,688
Utah	1,652	562	660	742	14.41	10,694	12,553
Vermont	530	700	712	731	15.96	11,670	11,867
Virginia	5,636	669	718	750	14.67	11,002	11,800
Washington	4,349	684	788	633	15.77	9,983	11,519
West Virginia	1,952	619	706	649	14.16	9,196	10,485
Wisconsin	4,766	660	649	719	15.89	11,429	11,235
Wyoming	511	704	967	918	11.30	10,372	14,242
Total	**236,158**	**658**	**705**	**713**	**14.46**	**10,311**	**11,042**

Source: Federal Highway Administration, Table SS84-18, published October 1985.

Brand Names of Gasoline and Motor Oil

Gasoline	Motor Oil
Ada Resources	
Phillips (r,ur,up, d)	(Phillips 66) M & M Unique HDS HDS + 1 Super HDS 11 Trop Artic
Advanced Oil Co.	
Prestige	Kendall
Agway Petroleum Corp.	
Agway (r,ur,up)	Agway
American Petrofina Inc.	
Fina (r,ur,up)	Fina Shield Fina HD Premium Fina Ultra Supreme Fina Turbo Fina 2001
Amoco Corp.	
Amoco (r) Amoco Lead Free (ur) Amoco Premium Lead Free (up)	Amoco 100 Amoco 200 Amoco 300 Amoco M-V Amoco LDO Amoco Ultimate
Anchor Gasoline Corp.	
Canal (r,ur,p,up,sp,usp)	
Arkansas Valley Petroleum	
DX (r,p,sp) Phillips 66 (r,p,sp)	
Ashland Oil Inc.	
Ashland (r,ur,up) SuperAmerica (r,ur,up,sp,usp,d) Payless (r,ur,up,sp,usp,d) Hi-Fy (r,ur,up,sp,usp,d) Bi-Lo (r,ur,up,sp,usp,d) Save More (r,ur,up,sp,usp,d) SoLo (r,ur,up,sp,usp,d) Red Head (r,ur,up,sp,usp,d)	SuperAmerica Valvoline
Atlantic Richfield Co.	
ARCO (r,ur,up)	ARCO ARCO Fleet HD ARCO XHD ARCO Fleet S3 Plus ARCO Supreme ARCO GT ARCO Graphite
Automatic Comfort Corp.	
Sunoco (r,ur) Sunoco Ultra (sp,usp) Texaco (r,ur,p,up)	Citgo Texaco Sunoco
Bagwell Oil Co., Inc.	
Union 76	Union 76 Wolf's Head
E.M. Bailey Distributing Co.	
Chevron (r,ur,up,d) Pettro (r,ur,sp,d)	Chevron Quaker State
Beacon Oil Co.	
Beacon (r,ur,p,up,d) Ultra (r,ur,p,d) Gas-N-Go (r,ur,p,d)	Sequoia Beacon
Best Oil Co.	
	Gulf Mobil Amoco Quaker State
Brennan Petroleum Products Co. Inc.	
Brenco (r,ur)	
Browning Oil Co.	
Shell (r,ur,up) Rally (r,ur,up)	Shell Valvoline
Burmah-Castrol Inc.	
	Castrol Heavy Duty 30 Castrol Heavy Duty 40 Castrol GTX 5W/30 Castrol GTX 10W/30 Castrol Multi-grade 20W/40 Castrol GTX 10W/40 Castrol GTX 20W/50 Castrol GTX 10W/50
California Target Enterprises Inc.	
Fast Save (r,ur,p,up,d) Q Brand (r,ur,p,up,d) Texaco (r,ur,up) Buy-Rite (r,ur,p,d)	
Campbell Oil Co. (Ohio)	
Sunoco Shell Union 76	Citgo Sunoco Shell
Cannon Oil Corp.	
Cannon (r,ur,p,up,sp,usp)	Cannon Regular Cannon HD Cannon 10W-40
Cel Oil Products Corp.	
Cel (r,ur,p,up,sp,usp) Gas-Up (r,ur,p,up,sp,usp)	
Cenex	
Cenex (r,ur,p,up,sp,usp,d)	Econex Cenex Superlube 518
Certified Oil Co.	
Certified (r,ur,p)	Certified Quaker State Valvoline
Chapman Inc.	
Texaco (r,ur,p,up,sp,usp)	URSP Havoline
Charter Marketing Co.	
Charter (r,ur,up)	
Chevron Corp.	
Chevron Regular (r) Chevron Unleaded (ur) Chevron Supreme Unleaded (up) Calco Regular (r) Calco Unleaded (ur) Calco Premium Unleaded (up) Gulf Good Gulf (r) Gulf Gulfcrest (ur) Gulf Super Unleaded (up)	Chevron Delo Chevron Custom Gulfpride Gulf Super Duty Gulf Lube
Cibro Gasoline Corp.	
Cibro	Cibro Texaco
Circle K Corp.	
Aero K (r,ur,up)	
Citgo Petroleum Corp.	
Citgo Regular (r) Citgo Unleaded (ur) Citgo Unleaded Plus 2 (up) Citgo Super Unleaded (usp)	Citgo Non-detergent Motor Oils Citgo C-300 HD Detergent Motor Oils Citgo All Season Motor Oils Citgo C-500 Motor Oils Citgo C-500 PLUS Motor Oils
Coast Oil Co.	
Texaco (r,ur,up,d) Arco (r,ur,up,d) Rotten Robbie (r,ur,p,up,d)	Morlube Coast
Coastal Corp.	
Derby	
Coen Oil Co.	
Amoco Mobil Lawsons	
Colonial Oil Industries Inc.	
Eagle (r) Colonial No-Lead (ur) Colonial No-Lead (up) Golden Eagle (usp)	
Como Oil Co	
Phillips 66	
Conoco Inc.	
Conoco (r,ur,up)	Par Tracon Tracon Supreme Super Motor Oil Fleet Motor Oil New Generation H.P. Turbo
Consumers Oil Corp. of Trenton, N.J.	
Mobil Chevron Texaco	
Cook & Cooley Inc.	
Texaco (r,ur,up)	
Crown Central Petroleum Corp.	
Crown (r) Lead-Free (ur) Lead-Free Xtra (up) Diesel (d)	All Season HD Premium HD Quality Universal ATF
Crystal Flash Petroleum Corp.	
Crystal (r,ur)	
Crystal U.S.A. Oil Inc.	
Crystal (r,ur,p,d)	Saxon
Curt's Oil Co., Inc.	
Curt's (r,up,usp,d)	Curt's HD Curt's Premium Curt's ATF
Curtis Parker Oil Co. Inc.	
Amoco (r,ur,usp)	AmoLube Amoco 100 Amoco 200 Amoco 300 Amoco LDO Amoco Ultimate
DeBlois Oil Co.	
Texaco (r,ur,up,usp) Sunoco (r) Sunoco Econo Sunoco Ultra	Texaco Sunoco
Dennis K. Burke Inc.	
Citgo (r,ur,up)	Citgo Fleetline Shell Chevron Castrol Texaco Amalie Exxon

	Gasoline	Motor Oil
Derby Refining Co.	Derby (r) DerbyStar Kleen (ur) Derby Premium Unlead with Ethanol (o)	Triumph Super Flex Ultra Life Premium E^2
Desert Oil Co.	Chevron	
Diamond Shamrock Refining & Marketing Co.	Diamond Shamrock	Triple Action Equa Flow
Dickey, Inc.	Conoco Texaco	
Dixie Oil Co.	Dixie (r,ur,up)	Dixie Super Dixie
DWF, Inc.	Sun (r,ur,up,sp,usp)	CDI Pennzoil DX Texaco Quaker State
East Coast Oil Corp.	East Coast (r,ur,up,d)	
Englefield Oil Co.	Duke (r,ur,up) Gulf (r,ur,up) Marathon (r,ur,up) Mobil (r,ur,up)	Duke Gulf Marathon Mobil
Exxon Co., U.S.A.	Exxon (r) Exxon Unleaded (ur) Exxon Extra (up)	Exxon Plus Exxon Extra Uniflo HDX Plus XD-3 XD-3 Extra
Farm & Home Oil Co.	Texaco (r,ur,p,up,sp,usp)	Texaco
Farmland Industries, Inc.	Co-op Magnum XP (up) Co-op Ruby GHP (dp)	Co-op Double Circle Co-op Premium Dual Season
Fortmeyer's Inc.	Pennzoil Citgo	Citgo Pennzoil Kendall Arco
Foster Oil Co.	Unocal (r,ur,up,usp) Mobil (r,ur,up,usp)	Motor Lube Union Mobil Pennzoil
Franko Oil Co.	Franko (r,ur,p,sp)	
Gem Petroleum	Aero K	Palm Quaker State
General Oil Co. Inc.	Fina	
Getty Petroleum Corp.	Getty Power Test	Getty Power Test
Godwin Oil Co.	Texaco Phillips	
Gresham Petroleum Co.	Amoco (r,ur,up,d)	Amoco
Gull Industries Inc.	Gull (r,ur,up)	
Highland Petroleum Inc.	Gas Pit (r,ur) 7-11 (r,ur)	
Angus I. Hines Inc.	Shell (r,ur,up,d) Texaco (r,ur,up,d) Sentry (r,ur,up,d) Citgo	
Horkey Oil Co. Inc.	Shell (r,ur,p,d)	Shell
Horn Distributing Co. Inc.	Gulf	
Hughes Oil Co.	Mobil Hughes	Mobil
Hull Oil Co.	Hull (r,ur,p,up,d)	Phillips 66
Hunt Oil Co.	Parade	
Independent Stations Co.	Atlantic (r,ur,sp,usp)	Arco Shell Chevron Quaker State
Jacobus Co.	Citgo Union 76	
Johnson Products Inc.	Citgo (r,ur,up) Sunoco Getty (ur,up) Texaco (r,ur,up) Mobil (r,ur,up) Top Gas (r,ur,up)	Citgo Mobil Sunoco
Kelley-Williamson Co.	Mobil (r,ur,p,d)	Mobil Kendall
Kerr-McGee Refining Corp.	KM (r,ur,p,up,sp,usp)	ValuLube Blue Max "All Fleet" Heavy Duty Blue Velvet FEO
Kickapoo Oil Co.	Kickapoo (r,ur,p,up,d)	Kickapoo
Kimber Petroleum Corp.	Amoco Citgo Getty Mobil	Amoco Citgo Getty Mobil
Kimbro Oil Co.	Amoco (r,ur,usp)	Amolube 30 Amoco MV10W30 Amoco LDO 10W40
Kingston Oil Supply Corp.	Mobil Getty	Mobil
Kirschner Bros. Oil Co.	Chevron Getty	
Krause Gentle Oil Corp.	Kerr-McGee Conoco Amoco Total Citgo Derby	Gordons Pennzoil Quaker State
Lake Shore Petrocorp	Phillips 66	Phillips MM Phillips Trop Artic Phillips HD II
Land O' Lakes Inc.	Land O' Lakes (r,ur,d)	Supreme 212 Golden D
Lokey Oil Co.	Diamond Shamrock	Diamond Shamrock
Lyden Oil Co.	Amoco (r,ur,usp,d) Citgo (r,ur,up)	Amoco Valvoline Quaker State Kendall Pennzoil Castrol
MAPCO Petroleum Inc.	Delta (r,ur,up,d)	Delta 10W40 Delta Non Detergent 30-Way Delta Heavy Duty
Marathon Petroleum Co.	MILE-maker Regular (r) MILE-maker Lead-Free (ur) SUPER-M Lead-Free (up)	#287 Marathon Hyd. & Flushing Oil Multipower-3 Motor Oil V.E.P. Heavy Duty Motor Oil Endurance Oil ATF Type F All-Season Motor Oil 577 Marafluid Super HT Dexron II Ultra-D 5W-40 Motor Oil
Martin Oil Marketing Ltd.	Martin (r,ur,up,d)	Martin Oil Martin HD Martin 10/30 Martin 10/40
McDowell Oil Service Inc.	Exxon	
Merit Oil Corp.	Merit (r,ur,up,d)	Merit Economy SAE20 Merit Economy SAE30 Merit 10W30 Merit 10W40
Merritt Truax Inc.	Texaco Arco Pride of Oregon	Chevron Texaco Arco Quaker State Kendall
Mid-Missouri Oil Co.	Shell	
Midwest Petroleum Co.	Sunoco Shell Fina	Saf T Lube Sun Shell Pennzoil

KEY:
Gasoline
(r) Regular
(ur) Unleaded regular
(p) Premium
(up) Unleaded premium
(sp) Super Premium
(usp) Unleaded super premium
(o) Other
(d) Diesel

Gasoline	Motor Oil
Milder Oil Co. Inc.	
Texaco	Milderene
	Cato
	Texaco
Miller Enterprises Inc. (Handy Way Food Stores)	
Union 76 (r,ur,p,d)	Union 76
	Quaker State
Miller Oil Co. (Va.)	
Amoco	
Exxon	
Phillips 66	
Mobil	
Missouri Terminal Oil Co.	
Fina (r,ur,p,up)	
Mobil Oil Corp.	
Mobil Regular (r)	Mobil Regular
Mobil Unleaded (ur)	Mobil Heavy Duty
Mobil Super Unleaded (up)	Mobil Super 10W-30
	Mobil Super 10W-40
	Mobil Super 20W-50
	Mobil Super 5W-30
	Mobil 1 15W-50
	Mobil 1 5W-30
E. L. Morgan Co.	
Chevron	Morgane
MPD Petroleum Inc.	
Union (r,ur,p,up,sp,usp)	Pennzoil
	Kendall
	National
Murphy Oil USA Inc.	
Spur (r,ur,up,d)	
Musket Corp.	
Love's (r,ur,usp,d)	Double Eagle Recond. 30W
	Sup-R-Lub 30W
	Sup-R-Lub 20W
	Pennzoil 20W
	Pennzoil 30W
	Quaker State Red 30W
National Convenience Stores	
Stop-N-Go	
Turbo-Go (usp)	
National Oil Co.	
Natco (r)	Natco 30
Natco Plus (ur)	Natco 10W-30
Natco Super (p)	Natco 10W-40
National Oil & Gas Inc.	
Phillips 66 (r,ur,p,up,sp,usp)	Phillips 66
	Marathon
Marathon (r,ur,p,up,sp,usp)	Kendall
Mobil	Mobil
Newell Oil Co. Inc.	
Gulf	Gulf
Noco Energy Corp.	
Noco (r,ur,up,d)	Exxon
	Gulf
	Mobil
Northville Industries Corp.	
Northville (r,ur,usp)	Northville
Olympian Oil Co.	
Olympic	Kendall
	Chevron
	Olympian
	Castrol
Parker Oil Co. Inc.	
Union 76	Union 76
Exxon	Exxon
Citgo	Citgo
Petrol	Texaco

Gasoline	Motor Oil
Peavey Oil Co.	
Texaco (r,ur,up,d)	Texaco
	Chevron
	Pennzoil
	Valvoline
Pennzoil Products Co.	
Pennzoil	Pennzoil
Fleetwing	
Pester Corp.	
Derby	Derby
Petroleum Marketers Inc.	
Shell (r,ur,up)	Citgo
Exxon (r,ur,up)	Exxon
Citgo (r,ur,up)	Shell
Phillips Petroleum Co.	
Phillips 66 (r,ur,up,usp)	Unique
	MM Motor Oil
	Super HD II
	Trop-Artic
Pilot Oil Corp.	
Pilot (r,ur,up,d)	Pilot Economy Motor Oil
	Pilot Premium Motor Oil
Pride of Texas Distributing Co. Inc.	
Texaco	
Diamond Shamrock	
Pride Oil Co. Inc. (Tenn.)	
Pride	Kendall
Private Brand Services Inc.	
P.B.S. (r,ur)	Pennzoil
Quaker State Oil Refining Corp.	
Quaker State (r,ur)	Quaker State Regular Motor Oil
	Quaker State HD Motor Oil
	Quaker State HDX Universal Fleet Motor Oil
	Quaker State Super Blend Motor Oil
	Quaker State DeLuxe Motor Oil
	Quaker State QSX Performance Motor Oil
	Quaker State QSX Turbo Motor Oil
	Quaker State Sterling Motor Oil
QuikTrip Corp.	
QuikTrip (r,ur,up,d)	Redline
Racetrac Petroleum Inc.	
Racetrac (r,ur,up,usp,o)	Quaker State
Remote Services Inc./Conna Corp.	
Convenient (r,ur,up)	
River Oil Co.	
Phillips 66	Phillips 66
Robinson Oil Co. Inc.	
Rotten Robbie (r,ur,up)	
Sahara Oil Co. Inc.	
Texaco	
Santee Oil Co. Inc.	
Shell (r,ur,up)	Shell Fire & Ice
	Shell Rotella T
	Shell Rotella X-100
Save-X USA Inc.	
Save-X (r,ur,up)	
Serv-N-Save (r,ur,up)	
Sears Oil Co. Inc. (N.Y.)	
Sears	Tri Pure
	Sears Premium
	Sears Supreme

Gasoline	Motor Oil
Self Service Oil Co.	
U Pump (r,ur,up,d)	Pennzoil
Sprint (r,ur,up,d)	Quaker State
	Citgo
Shay Oil Co. Inc.	
Exxon (r,ur,p,up,sp,usp)	Exxon
Shelby Petroleum Corp.	
Peer (r,ur,p,up)	Bonus Regular
Sail (r,ur,p,up)	Sail Premium
	Peer Premium
	Peer HD
	Peer Multi-Grade
Shell Oil Company	
SU-2000 (usp)	Shell Motor Oil
RU-2000 (ur)	Shell X-100
Shell Regular (r)	Shell Fire & Ice
Shotmeyer Bros. Petroleum Corp.	
Mobil	Mobil
Shotmeyer Oil Corp.	
U-Save	
Mogas	
The SICO Co.	
Amoco (r,ur)	Citgo
Atlantic (r,ur)	Texaco
Texaco (r,ur)	Valvoline
	Amoco
	Quaker State
Simon Oil Co. Inc.	
Sunoco (r,ur,up)	
Mobil (r,ur,up)	
Smith-Shafer Oil Co.	
SS (r,ur,up)	SS
	Quaker State
SMO Inc.	
Texaco	Venellus
BP	Havoline
Somerset Refinery Inc.	
Somerset (r,ur,p)	G.R. (Gurley Products)
	Havoline
	Valvoline
	Pennzoil
	Quaker State
Southern Oil Co. Inc.	
Phillips 66	Phillips 66
	Quaker State
	Pennzoil
Southern States Co-op	
Southern States	Unico
Spartan Petroleum Co. Inc.	
Chevron (r,ur,sp)	Chevron
	Zeroline
The Spencer Companies Inc.	
Amoco (r,ur,usp)	Amoco
Citgo (r,ur,usp)	Citgo
M. Spiegel & Sons Oil Corp.	
Gulf	
SOS	
The Standard Oil Company (Ohio)	
Octron (r)	HQD Gulf Pride Single
Cetron (ur)	Premex Gulf Pride Lube
Super Cetron (up)	Boron
Good Gulf (r)	QVO Gulf Pride Super Premium
Gulf Crest (ur)	
Gulf Super (up)	Nitrex
Steuart Petroleum Co.	
Steuart (r,ur,p,up,sp,usp)	Kampcam II
	Pennzoil

Gasoline	Motor Oil
Sun Refining & Marketing Co.	
Sunoco DX	Diamond
Plus (up)	Sun Lube
Super Sunoco Ultra (usp)	Dynalube
Economy (d)	Special
	MPG Plus
Taylor Oil Co.	
ETNA (r,ur,up)	
TCR Inc.	
TCR (r,ur,up)	TCR Non-Detergent TCR High Detergent TCR 10W-40
Tenneco Oil Co.	
Tenneco (r,ur,up)	Shurlube
Direct (r,ur,up)	Tenneco Four Seasons
Trust (r,ur,up)	Tenneco Extra Heavy Duty
Red Diamond (r,ur,up)	Tenneco Special Detergent
	Tenneco Super H.D. Diesel Motor Oil
Texaco Inc.	
Texaco Regular (r)	Havoline Premium
Texaco Super (sp)	Havoline Supreme
Texaco Super Regular w/Ethanol (o)	Havoline High Performance
Texaco Unleaded (ur)	
Texaco Premium Unleaded w/Ethanol (up)	
Texaco Super Unleaded (usp)	
Texaco Super Unleaded w/Ethanol (o)	
Texas City Refining Inc.	
TCR (r,ur,up)	
Texas Star Oil Co.	
Texaco	Texaco Chevron Gulf
Thornhill Oil Co.	
Amoco (r,ur,up)	Amolube LDO Ultimate
Time Saver Stores Inc.	
Amoco (r,ur,usp) Texaco (r,ur,usp) Gulf Exxon Shell Private	
Tooley Oil Co.	
Shell (r,ur,sp,usp,d) Tooley's (r,ur,sp,usp,d)	
Total Petroleum Inc.	
Total (r,ur,up,usp,d)	Total Duralube
Vickers (r,ur,up,usp,d)	Total Super HD
APCO (r,ur,up,usp,d)	Total Superlube
Best (r,ur,up,usp,d)	Total 500
Transit Oil Co.	
Mobil (r,ur,up,d) Shell (r,ur,up) Transit (r,ur,up,d)	
Travelers Petroleum Inc.	
Texaco (r,ur,p,up) Self Way (r,ur,p,up)	
Trenton Oil Co. Inc.	
Amoco (r ur,usp,d)	Amoco
Triton Inc.	
Phillips 66 (r,ur,up,d) Sav-A-Ton (r) Happy Stores (ur,up,d)	
Ultramar Petroleum Inc.	
Ultramar (r,ur)	Ultramar
Mobil (r,ur)	Chevron
	Mobil

Gasoline	Motor Oil
Unocal Corp.	
76 (r,ur,p,usp,d)	Unocal Heavy Duty Unocal Premium Unocal Guardol Unocal Super 10W-30 Unocal Super 10W-40 Unocal 20W-50 High Performance
Wake Up Oil Co.	
Wake Up (r,ur,usp)	
Western Marketing Inc.	
Conoco (r,ur,up,d)	Conoco Shell
Wickland Oil Co.	
Regal (r,ur,p,up)	

Gasoline	Motor Oil
A.T. Williams Oil Co.	
Wilco (r,ur,up)	Wilco
J.H. Williams Oil Co. Inc.	
Union 76 (r,ur,up)	Union Custom Union HD Union Guardol Union Premium Union Super Union HP-20W50
York Oil Co. Inc.	
Citgo (r,ur,up)	
Zephyr Inc.	
Zephyr (r,ur,up)	Conoco Texaco Mobil Pennzoil Shell

EBW 660

EMERGENCY SHUT-OFF VALVE

THREE VALVE STYLES AVAILABLE
EBW
660
UL
PAT 354204
Size: 1-1/2"

The EBW 660 Emergency Shut-off Valve shuts off fuel supply instantly in the event of collision or fire. EBW 660 features — Concealed shear section in replaceable adaptor • For service can be opened and closed externally • Test plug with provision for seal wire • Straight through flow for minimum restriction • Thermomechanical fire protection • Corrosion resistant • Threaded bosses for rigid mounting • Three models, all U.L. registered. Write for latest brochure.

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Capital Spending in the Oil Industry: A 20-Year Overview at Home and Abroad

(Millions of Dollars)

	1984		1983		1982		1981		1980	
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
Marketing	$ 1,900	$ 3,275	$ 1,375	$ 3,330	$ 1,400	$ 3,700	$ 1,425	$ 3,775*	$ 1,300	$ 3,750
Refining (a)	4,200	15,700	5,100	17,075	7,550*	19,525*	7,250	18,325	5,650	16,125
Transportation	975	5,925	1,000	7,725	1,300	7,650	1,725	10,300	2,150	7,725
Production	38,050	34,650	37,275	36,575	52,275*	43,400*	51,700	41,675	33,100	33,775
Other	725	1,375	850	1,500	1,025	1,600	900	1,525	700	1,250
Total	**45,850**	**60,925**	**45,600**	**66,175**	**63,550***	**78,875***	**63,600**	**75,600**	**42,900**	**62,625**

	1979		1978		1977		1976		1975	
Marketing	975	2,775	950	2,290	775	1,895	625	1,555	650	1,550
Refining (a)	4,625	14,385	4,050	13,275	3,770	10,965	3,775	7,635	3,600	8,270
Transportation	1,450	6,575	1,350	7,380	2,300	8,060	3,900*	12,350*	3,725	11,510
Production	24,600	24,465	17,650	20,055	15,180	17,280	13,460	12,315	9,380	9,875
Other	550	1,225	475	980	445	980	325	785	370	735
Total	**32,200**	**49,425**	**24,475**	**43,900**	**22,400**	**39,180**	**22,085**	**34,640**	**17,725**	**31,900**

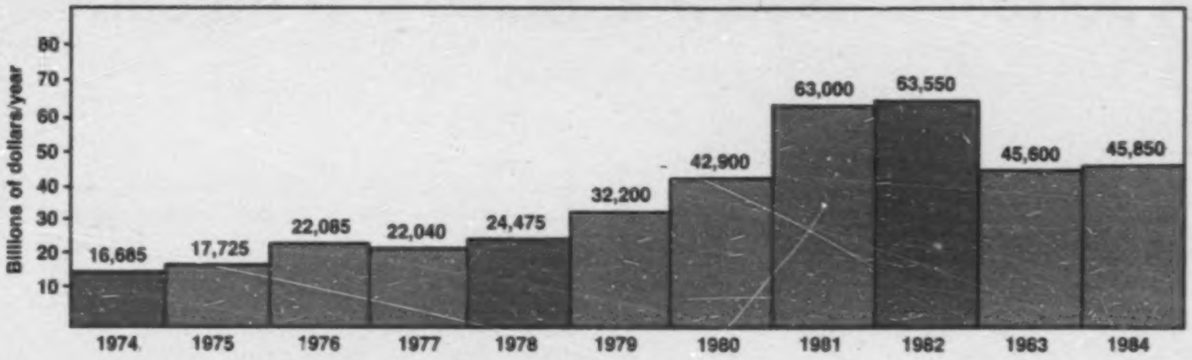
	1974		1973		1972		1971		1970	
Marketing	650	1,565	850	1,630	1,100	1,725	1,350	2,030	1,450*	1,770
Refinery (a)	2,600	7,115	1,475	4,565	1,350	4,995	1,550	4,740	1,625	3,900
Transportation	1,660	9,760	550	7,230	425	4,580	675	3,435	550	2,915
Production	11,450	8,085	7,440	5,485	5,915	4,190	3,385	3,830	4,335	2,895
Other	325	550	325	445	260	450	290	515	265	420
Total	**16,625**	**27,075**	**10,640**	**19,355**	**9,050**	**15,900**	**7,250**	**14,550**	**8,225**	**11,900**

	1969		1968		1967		1966		1965	
Marketing	1,250	1,555	1,150	1,515	1,250	1,455	1,100	1,310	1,000	1,430
Refinery (a)	1,525	2,995	1,450	2,980	1,600	2,550	1,575	2,435	1,125	1,665
Transportation	400	2,600	475	2,280	400	1,740	300	1,755	265	1,510
Production	4,750	2,790	4,925	2,535	4,025	1,975	3,770	1,870	3,760	2,025
Other	250	260	350	240	375	205	380	180	225	170
Total	**8,175**	**10,200**	**8,350**	**9,550**	**7,650**	**7,925**	**7,125**	**7,550**	**6,375**	**6,800**

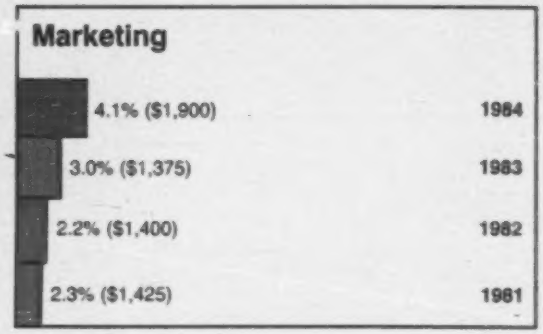
(a) Includes chemicals and petrochemicals.
*Peak years are indicated with asterisks.
Source: Chase Manhattan Bank, Capital Investments in The World Petroleum Industry.

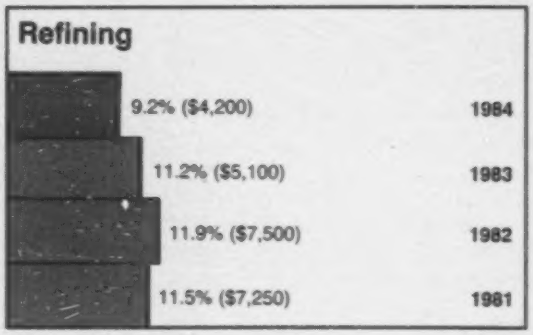
Capital Spending by U.S. Oil Companies

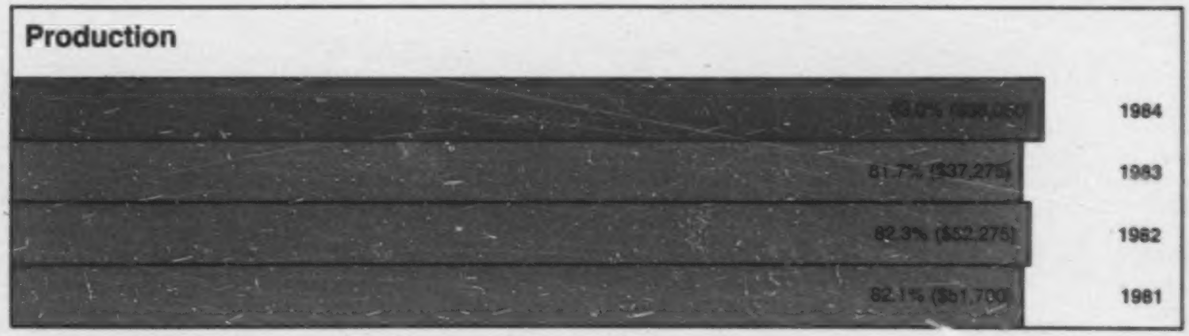
(millions of dollars)

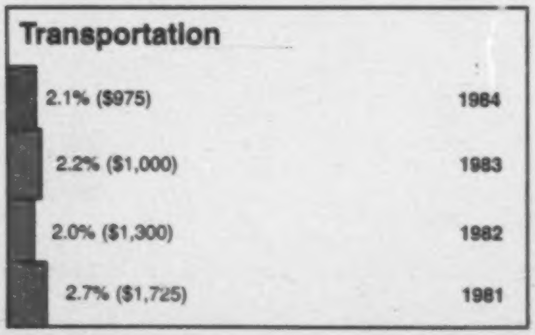


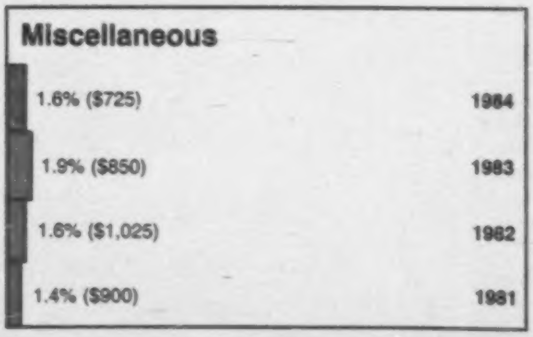
Spending by Divisions and Percentages











Source: Chase Manhattan Bank, New York, NY

How Oil Companies Handle

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED†	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer-operated	Salary-operated
Acme Retail, Inc.	45(A)	2	38	0	7	—
Adams Resources & Energy, Inc.	145	1	87	58	10	4
Advanced Oil Co.	30	2	30	0	3	20
Agway Inc.	170	9	8	—	3	5
American Petrofina, Inc.	4,249(B)	24	0	3,399	0	0
Amoco Oil Co.	15,077(C)	36	4,909	10,168	4,716	193
Anchor Gasoline Corp.	100	1	—	—	—	—
Arkansas Valley Petroleum	31	1	5	—	4	1
Armour Oil Co.	30	4	30	0	0	3
The Arnold Companies	96	6	2	3	5	—
Ashland Oil, Inc.	1,914	15	470	519	499	490
Atlantic Richfield Co.	1,748(D)	6	1,263	485	—	—
Atlas Oil Co. of Utica	—	—	—	—	—	—
A.T. Williams Oil Co.	74	2	—	—	0	74
Automatic Comfort Corp.	35	1	35	0	11	23
Aztec Energy Co.	30	1	30	0	0	30
Bagwell Oil Co., Inc.	20	2	—	6	3	—
Beacon Oil Co.	275	3	150	175	200	75
Best Oil Co.	17	1	13	4	0	15
Brennan Petroleum Products Co., Inc.	2	1	—	0	0	2
Browning Oil Co.	30	1	24	0	—	—
California Target Enterprises, Inc.	150	1	75	75	0	150
Campbell Oil Co. (Ohio)	71(E)	1	55	—	55	—
Campbell Oil Co. (N.Y.)	98	2	98	0	56	22
Cannon Oil Corp.	20	3	20	0	0	20
Cel Oil Products Corp.	8	1	6	2	2	6
Cenex	1,067	11	900	0	0	0
Center Independent Oil Co.	50	1	35	—	22	13
Certified Oil Co.	166	3	166	0	56	110
Chapman, Inc.	36	1	36	0	21	15
Charter Marketing Co.	406	9	406	0	65	341
Chevron Corp.	18,645	43	6,834	9,544	15,772	606
Cibro Gasoline Corp.	100	2	10	90	100	0
Circle K Corp.	45	5	—	—	—	—
Citgo Petroleum Corp.	6,370	39	2,777	3,593	43	14
Coen Oil Co.	250	3	250	0	248	0
Colonial Oil Industries, Inc.	63(F)	3	62	—	0	7
Como Oil Co.	28	2	28	0	10	0
Conoco Inc.	6,276(G)	38	2,340	3,936	5,766	509
Consumers Gasoline Stations, Inc.	29	3	29	0	0	29
Consumers Oil Corp. of Trenton, N.J.	24	2	—	—	6	6
Crown Central Petroleum Corp.	247	7	247	0	103	144
Crystal Flash Petroleum Corp.	17	1	17	0	0	17
C.S.C. Oil Co.	21	2	15	—	—	15
Curt's Oil Co., Inc.	8	1	—	—	—	8
Curtis Parker Oil Co. Inc.	32	1	18	—	18	—
DeBlois Oil Co.	32(H)	2	32	0	0	32
Derby Refining Co.	469	12	123	346	—	—
Diamond Shamrock Refining & Marketing Co.	2,034(Z)	12	469	1,565	584	1,450
Dickey Inc.	7	1	4	3	3	4
Dixie Oil Co.	105	3	—	—	—	—
East Coast Oil Corp.	33	1	33	0	0	33
E.M. Bailey Dist. Co.	44	3	23	21	40	2
Engelfield Oil Co.	245	2	245	0	185	60
Exxon Co., U.S.A.	17,427	30	5,547	11,702	3,742	560
Farm & Home Oil Co.	28	1	28	0	22	0
Farmland Industries, Inc.	782	17	782	0	—	—
Fortmeyer's Inc.	2	1	2	0	—	—
Foster Oil Co.	37	1	7	—	7	—
Franko Oil Co.	90	2	—	—	—	—
Gas City Ltd.	42	2	42	0	0	42
Gem Petroleum, Inc.	342	2	—	—	—	—

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†Includes District of Columbia

(A) Includes Pacemaker Corp.

(B) Includes Finaserve, Inc.

(C) Includes Omega Oil Company (63 outlets). In May, 1986, Amoco announced it was discontinuing dealer and jobber marketing operations in Mass., R.I., La., and Texas, by Dec. 1, 1986, and Conn. (except Fairfield and New Haven Counties) by May 31, 1987. The withdrawal effects 924 branded outlets and 75 Amoco jobbers.

Product Distribution

				BRANDED JOBBERS/COMMISSIONED AGENTS			
					Number selling . . .		
Commission-operated	Full-service only	Self-service only	Self-service/ Full-service	Total	Gasoline only	Fuel Oil only	Gasoline/ Fuel Oil
—	—	—	—	—	—	—	—
0	8	4	2	16	0	0	16
7	0	0	30	0	0	0	0
—	—	8	—	61	3	0	58
0	340	2,039	1,020	512	0	0	512
0	(A)	(A)	(A)	1,699	—	—	—
—	—	—	—	—	—	—	—
—	0	2	3	0	0	0	0
0	0	30	0	0	0	0	0
—	2	0	3	1	0	0	1
—	389	450	150	181	10	0	171
—	—	—	—	44	44	0	0
—	—	—	—	0	0	0	0
0	0	74	0	—	—	—	—
1	11	24	0	1	1	0	0
0	0	29	1	—	—	—	—
2	3	—	2	—	—	—	—
0	0	200	75	60	60	0	0
2	2	15	0	2	2	—	—
0	0	2	0	0	0	0	0
—	0	0	24	0	0	0	0
0	0	150	0	0	0	0	0
—	50	0	5	0	0	0	0
20	14	12	72	0	0	0	0
0	0	20	0	0	0	0	0
0	4	4	0	8	0	0	8
0	0	750	150	1,067	0	0	1,067
0	25	10	0	0	0	0	0
0	5	1	160	0	0	0	0
0	4	15	17	0	0	0	0
0	4	402	0	0	0	0	0
0	—	—	—	935	0	107	828
0	50	0	50	22	0	0	22
—	—	—	—	0	0	0	0
0	—	—	—	302	292	4	6
2	90	10	150	10	—	—	—
55	6	3	53	0	0	0	0
18	2	6	20	0	0	0	0
6	2,300	2,771	1,196	707	—	—	—
0	4	23	2	—	—	—	—
12	24	0	0	—	—	—	—
0	0	57	190	0	0	0	0
0	0	14	3	2	0	0	2
—	—	9	6	0	0	0	0
—	0	8	0	0	0	0	0
—	7	6	5	3	3	0	0
0	17	15	0	0	0	0	0
—	—	—	—	86	0	0	86
0	40	1,645	345	162	0	0	0
0	0	1	6	0	0	0	0
—	40	10	65	—	—	—	—
0	2	30	1	0	0	0	0
2	34	2	8	7	—	—	7
0	48	68	131	5	0	0	5
—	—	—	—	—	—	—	—
6	22	0	8	6	6	0	0
—	50%	20%	30%	—	—	—	—
—	2	0	0	—	—	—	—
—	6	—	1	0	0	0	0
—	—	—	—	—	—	—	—
0	0	42	0	0	0	0	0
—	—	342	—	6	0	0	6

(D) Includes Prestige Stations, Inc.
(E) Includes Steiner Oil
(F) Includes Interstate Stations Inc., Colonial Interstate, Inc.
(G) Includes Kayo Oil Co.

BULK PLANTS				TERMINALS				
	Company-operated				Company-operated			
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	Company
0	0	0	0	0	0	0	0	Acme Retail, Inc.
18	2	2	14	0	0	0	0	Adams Resources & Energy, Inc.
0	0	0	0	0	0	0	0	Advanced Oil Co.
112	112	0	21	11	11	0	0	Agway Inc.
0	0	0	410	9	9	0	1	American Petrofina, Inc.
0	0	0	1,899	83	83	0	0	Amoco Oil Co.
10	0	10	2	2	2	—	—	Anchor Gasoline Corp.
0	0	0	0	0	0	0	0	Arkansas Valley Petroleum
0	0	0	0	0	0	0	0	Armour Oil Co.
0	0	0	1	2	2	0	0	The Arnold Companies
148	15	133	13	42	42	0	0	Ashland Oil, Inc.
0	0	0	—	19	19	0	0	Atlantic Richfield Co.
1	—	—	—	1	1	0	0	Atlas Oil Co. of Utica
—	—	—	—	—	—	—	—	A.T. Williams Oil Co.
0	0	0	0	2	2	0	0	Automatic Comfort Corp.
1	1	0	0	0	0	0	0	Aztec Energy Co.
2	2	0	—	0	0	0	0	Bagwell Oil Co., Inc.
20	0	0	20	58	0	58	0	Beacon Oil Co.
0	0	0	0	0	0	0	0	Best Oil Co.
0	0	0	0	0	0	0	0	Brennan Petroleum Products Co., Inc.
2	2	0	0	0	0	0	0	Browning Oil Co.
0	0	0	0	0	0	0	0	California Target Enterprises, Inc.
3	3	0	0	0	0	0	0	Campbell Oil Co. (Ohio)
7	7	0	0	1	1	0	0	Campbell Oil Co. (N.Y.)
0	0	0	0	0	0	0	0	Cannon Oil Corp.
1	1	0	—	—	—	—	—	Cel Oil Products Corp.
1,000	1,000	0	1-2	0	0	0	0	Cenex
2	2	0	0	0	0	0	0	Center Independent Oil Co.
10	10	0	0	3	1	—	—	Certified Oil Co.
2	2	0	2	0	0	0	0	Chapman, Inc.
0	0	0	0	0	0	0	0	Charter Marketing Co.
1,151	0	18	1,113	89	89	0	18	Chevron Corp.
0	0	0	0	8	8	0	0	Cibro Gasoline Corp.
0	0	0	0	0	0	0	0	Circle K Corp.
0	0	0	—	29	25	0	—	Citgo Petroleum Corp.
2	2	0	0	0	—	—	—	Coen Oil Co.
1	1	—	95	2	2	0	0	Colonial Oil Industries
4	4	0	0	0	0	0	0	Como Oil Co.
30	9	21	—	55	55	0	—	Conoco Inc.
—	—	—	—	—	—	—	—	Consumers Gasoline Stations Inc.
1	1	0	0	—	—	—	—	Consumers Oil Corp. of Trenton, N.J.
0	0	0	0	11	11	0	0	Crown Central Petroleum Corp.
5	3	2	0	0	0	0	0	Crystal Flash Petroleum Corp.
0	0	0	0	0	0	0	0	C.S.C. Oil Co.
0	0	0	0	0	0	0	0	Curt's Oil Co., Inc.
3	—	2	1	0	0	0	0	Curtis Parker Oil Co. Inc.
2	2	0	0	0	0	0	0	DeBlois Oil Co.
0	0	0	0	0	0	0	0	Derby Refining Co.
0	0	0	40	13	13	0	0	Diamond Shamrock Refining & Marketing Co.
3	3	0	0	0	0	0	0	Dickey Inc.
—	—	—	—	—	—	—	—	Dixie Oil Co.
0	0	0	0	0	0	0	0	East Coast Oil Corp.
4	1	3	0	0	0	0	0	E.M. Bailey Dist. Co.
10	9	1	0	0	0	0	0	Engelfield Oil Co.
6	—	1	5	65	65	0	—	Exxon Co., U.S.A.
2	—	—	—	1	—	—	—	Farm & Home Oil Co.
0	0	0	0	2	—	—	—	Farmland Industries, Inc.
—	—	—	—	—	—	—	—	Fortmeyer's Inc.
3	—	—	0	0	0	0	0	Foster Oil Co.
—	—	—	—	—	—	—	—	Franko Oil Co.
1		0	0	0	0	0	0	Gas City Ltd.
1	1	0	1	0	0	0	0	Gem Petroleum Inc.

(H) Includes Beacon Oil Co.
(I) Includes Marion Knudson, Inc.
(J) Includes Hi-Lo Oil Co., Inc., Cook Oil Co., Inc., Workingman's Friend Oil, Inc., Fairway Oil, Inc.
(K) Includes Amos Post Co., Paramount Oil Co.

How Oil Companies Handle

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED†	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer-operated	Salary-operated
General Oil Co. Inc.	39	1	—	—	—	—
Getty Petroleum Corp.	1,553	11	—	—	—	—
Global Petroleum	10	1	—	—	—	—
Golden Gate Petroleum Corp.	—	—	—	—	—	—
Gull Industries, Inc.	115(I)	2	115	0	0	12
Harris Enterprises, Inc.	28	2	28	0	22	6
Highway Oil, Inc.	216(J)	24	216	0	0	216
Hughes Oil Co.	60	1	25	5	30	—
Hull Oil Co.	31	2	1	—	0	—
Hunt Oil Co.	175	4	2	173	25	150
Huntley Jiffy, Inc.	330	2	290	40	0	330
Independent Stations Co.	3	1	3	0	0	3
J. H. Williams Oil Co., Inc.	80	1	77	3	77	3
J. & L. Oil Co., Inc.	60	9	57	—	4	—
Johnson Products, Inc.	68	6	47	15	0	62
Kelley-Williamson Co.	45	2	45	0	31	14
Kerr-McGee Refining Corp.	1,879	20	28	1,024	655	397
Kickapoo Oil Co., Inc.	60	1	12	—	—	12
Kimber Petroleum Corp.	150	1	150	0	140	10
Kimbro Oil Co.	41	1	19	—	18	1
Kingston Oil Supply Corp.	60(K)	1	60	0	55	3
Kirschner Bros. Oil Co.	30	2	30	0	0	30
Krause Gentle Oil Corp.	78(L)	1	3	—	3	—
Lake Shore Petrocorp	32(M)	2	0	32	29	3
Land O'Lakes, Inc.	407	7	387	3	392	—
Lokey Oil Co.	23	1	23	0	23	0
Lyden Oil Co.	176	1	176	0	30	42
Mapco Petroleum Inc.	301	13	301	0	0	301
Marathon Petroleum Co.	2,361	6	672	1,473	461	0
Martin Oil Marketing Ltd.	52	6	52	0	0	52
Mauger & Co.	40	1	—	—	24	16
McDowell Oil Service Inc.	31	1	31	0	0	0
McLeieer Oil, Inc.	60	1	60	0	57	3
Merritt Truax Inc.	34	1	34	0	31	3
Mid-Missouri Oil Co.	9	1	9	0	3	6
Mid-States Petroleum	96	3	96	0	63	28
Midwest Petroleum Co.	165(N)	2	165	0	100	65
Miller Enterprises, Inc.	70	1	—	—	—	—
Miller Oil Co.	62	2	54	—	45	9
Missouri Terminal Oil Co.	16	1	1	—	15	1
Mobil Oil Corp.	13,310	40	5,955	7,355	11,777	1,533
M. Spiegel & Sons Oil Corp.	45	1	45	0	45	0
Murphy Oil USA, Inc.	585	14	444	141	200	—
Musket Corp.	143	9	143	0	0	143
National Conveniences Stores, Inc.	94(O)	4	81	13	0	94
National Oil Co.	—	—	—	—	—	—
National Oil & Gas Inc.	88	2	50	15	50	3
Neal Inc.	33	1	33	0	1	32
Nella Oil Co.	20	1	19	1	1	19
Newell Oil Co. Inc.	15	1	15	0	8	1
Noco Energy Corp.	25	1	25	0	—	—
Northville Industries Inc.	30	1	30	0	0	30
Olympian Oil Co.	50	*1	50	0	25	25
Pacer Oil Co.	20	1	20	0	5	15
Parker Oil Co.	157	2	10	—	10	—
Pennzoil Products Co.	830	7	58	32	38	20
Pester Corp.	215	10	215	0	0	215
Petroleum Marketers Inc.	64(P)	2	9	6	9	—
Petrotex Marketing, Inc.	31	1	10	—	10	—
Phillips Petroleum Co.	10,505	34	—	—	—	—
Pilot Oil Corp.	110	14	10	—	—	10
Pride of Texas Dist. Co., Inc.	26	1	9	0	9	0

(L) Includes North Iowa Oil, Chieftain Corp., Lil' Jimmy's Quick Shops
(M) Includes Tri Mart Inc.
(N) Includes Bolch Oil Co.
(O) Includes Stop N Go Markets of Texas, Inc., Hot Stop Markets, Colonial Food Stores, Inc.

Product Distribution (cont'd.)

				BRANDED JOBBERS/COMMISSIONED AGENTS			
					Number selling . . .		
Commission-operated	Full-service only	Self-service only	Self-service/Full-service	Total	Gasoline only	Fuel Oil only	Gasoline/Fuel Oil
—	—	—	—	—	—	—	—
—	—	—	—	40	0	0	40
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
103	0	95	20	—	—	—	—
0	26	2	0	—	—	—	—
0	117	19	80	0	0	0	0
—	2	1	27	1	0	0	1
—	2	5	—	0	0	0	0
0	0	155	20	21	0	0	21
0	0	330	0	2	2	0	0
0	0	0	3	0	0	0	0
—	35	3	42	1	—	—	—
—	3	54	—	0	0	0	0
0	26	6	30	4	0	0	4
0	20	16	9	6	0	0	6
0	147	422	483	447	40	2	405
—	—	12	—	0	0	0	0
0	150	0	0	0	0	0	0
—	—	—	19	0	0	0	0
2	56	3	1	4	2	2	0
0	20	10	0	0	0	0	0
—	1	1	1	0	0	0	0
0	9	4	19	1	—	—	—
—	22	178	192	407	0	0	407
0	0	0	23	0	0	0	0
2	17	154	5	2	0	0	2
0	0	301	0	0	0	0	0
0	391	158	1,596	450	0	0	450
0	0	52	0	0	0	0	0
0	24	10	6	0	0	0	0
31	0	31	0	0	0	0	0
0	20	20	20	10	0	0	10
0	0	0	34	0	0	0	0
0	0	8	1	0	0	0	0
5	60	26	10	6	0	1	5
0	16	75	74	0	0	0	0
—	—	—	—	—	—	—	—
—	4	0	50	1	0	0	1
0	8	4	4	5	0	0	5
—	—	—	—	1,471	35	465	971
0	0	5	40	0	0	0	0
—	10	565	10	0	0	0	0
0	0	143	0	—	—	—	—
0	0	94	0	1	0	0	1
—	—	—	—	—	—	—	—
12	5	10	50	14	0	0	14
0	1	32	0	—	—	—	—
0	0	19	1	0	0	0	0
6	2	9	4	—	—	—	—
—	15	5	5	20	0	5	15
0	13	17	0	—	—	—	—
0	14	29	7	0	0	0	0
0	0	20	0	4	4	0	0
—	1	1	6	—	—	—	—
0	38	20	0	161	—	—	—
0	0	200	15	0	0	0	0
—	0	0	9	0	0	0	0
—	—	—	10	—	—	—	—
—	—	—	—	1,568	—	—	—
—	3	4	3	0	0	0	0
0	—	—	8	1	1	—	—

(P) Includes Stop In Food Stores.
(Q) Includes Dixie Diesel Truck Stops
(R) Includes Mission Trail Oil Co.
(S) Includes Serv-N-Save, Inc.

BULK PLANTS				TERMINALS				
	Company-operated				Company-operated			
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	Company
1	1	—	—	—	—	—	—	General Oil Co. Inc.
—	—	—	15	12	12	0	0	Getty Petroleum Corp.
—	—	—	—	5	—	—	—	Global Petroleum
2	2	0	—	1	1	0	—	Golden Gate Petroleum Corp.
3	—	—	—	0	0	0	0	Gull Industries, Inc.
3	—	—	—	0	0	0	0	Harris Enterprises, Inc.
0	0	0	0	0	0	0	0	Highway Oil, Inc.
2	1	1	—	0	0	0	0	Hughes Oil Co.
1	1	0	0	0	0	0	0	Hull Oil Co.
0	0	0	0	1	1	0	0	Hunt Oil Co.
0	0	0	0	0	0	0	0	Huntley Jiffy, Inc.
0	0	0	0	0	0	0	0	Independent Stations Co.
4	3	1	0	0	0	0	0	J. H. Williams Oil Co., Inc.
0	0	0	0	0	0	0	0	J. & L. Oil Co., Inc.
0	0	0	0	0	0	0	0	Johnson Products, Inc.
7	2	5	—	0	0	0	0	Kelley-Williamson Co.
1	1	0	332	20	20	0	1	Kerr-McGee Refining Corp.
0	0	0	0	0	0	0	0	Kickapoo Oil Co., Inc.
0	0	0	0	0	0	0	0	Kimber Petroleum Corp.
0	0	0	0	0	0	0	0	Kimbro Oil Co.
3	3	0	0	7	7	0	0	Kingston Oil Supply Corp.
0	0	0	0	0	0	0	0	Kirschner Bros. Oil Co.
1	1	0	0	0	0	0	0	Krause Gentle Oil Corp.
0	0	0	0	0	0	0	0	Lake Shore Petrocorp
0	0	0	305	3	3	0	0	Land O'Lakes, Inc.
1	1	0	0	0	0	0	0	Lokey Oil Co.
3	3	0	0	0	0	0	0	Lyden Oil Co.
0	0	0	0	1	1	0	0	Mapco Petroleum Inc.
1	1	0	349	51	51	0	0	Marathon Petroleum Co.
0	0	0	0	3	2	0	0	Martin Oil Marketing Ltd.
—	—	—	—	—	—	—	—	Mauger & Co.
1	1	0	0	0	0	0	0	McDowell Oil Service, Inc.
4	3	1	2	0	0	0	0	McLeleer Oil, Inc.
3	3	0	0	0	0	0	0	Merritt Truay Inc.
0	0	0	0	0	0	0	0	Mid-Missouri Oil Co.
9	5	4	4	1	0	1	0	Mid-States Petroleum
0	0	0	0	0	0	0	0	Midwest Petroleum Co.
—	—	—	—	—	—	—	—	Miller Enterprises, Inc.
3	3	0	0	1	1	0	0	Miller Oil Co.
3	3	0	3	1	1	0	0	Missouri Terminal Oil Co.
99	81	18	1,255	81	81	0	0	Mobil Oil Corp.
1	1	0	0	0	0	0	0	M. Spiegel & Sons Oil Corp.
0	0	0	0	22	22	0	—	Murphy Oil USA, Inc.
—	—	—	—	—	—	—	—	Musket Corp.
1	1	0	1	1	1	0	0	National Convenience Stores, Inc.
—	—	—	—	—	—	—	—	National Oil Co.
12	0	12	0	0	0	0	0	National Oil & Gas Inc.
—	—	—	—	—	—	—	—	Neal Inc.
0	0	0	0	0	0	0	0	Nella Oil Co.
—	—	—	—	—	—	—	—	Newell Oil Co., Inc.
3	—	—	—	3	—	—	—	Noco Energy Corp.
—	—	—	—	6	6	—	—	Northville Industries Inc.
0	0	0	0	0	0	0	0	Olympian Oil Co.
1	1	0	0	0	0	0	0	Pacer Oil Co.
0	0	0	0	1	1	0	0	Parker Oil Co.
3	3	0	6	6	3	—	—	Pennzoil Products Co.
0	0	0	0	0	0	0	0	Pester Corp.
7	7	0	—	1	1	0	—	Petroleum Marketers Inc.
—	—	—	—	—	—	—	—	Petrotex Marketing, Inc.
2	1	1	—	30	30	0	4	Phillips Petroleum Co.
—	—	—	—	—	—	—	—	Pilot Oil Corp.
0	0	0	0	0	0	0	0	Pride of Texas Dist. Co., Inc.

(T) Includes Delmarva Oil, Inc.
(U) Includes Alabama Oil Co., Mid-South Oil Co.
(V) Includes Boron Oil Co., BP Oil Inc. Also includes Gulf outlets in the Southeast acquired by Standard Oil.
(W) Includes TCR, Inc.

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED†	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer-operated	Salary-operated
Pride Oil Co., Inc. (Miss.)	22	2	22	0	1	1
Pride Oil Co., Inc. (Tenn.)	14	1	14	0	0	14
Promana, Inc.	10	1	10	0	—	—
Publix Oil Co., Inc.	105	4	105	0	96	9
Pyramid Oil Co.	55	1	55	—	3	—
Quaker State Oil Refining Corp.	88	4	3	77	1	3
Quiktrip Corp.	214	4	214	—	—	214
Racetrack Petroleum, Inc.	275	13	275	0	0	125
Remote Services, Inc.	268	9	268	0	0	45
Republic Oil Corp.	4(Q)	1	0	4	0	4
River Oil Co.	24	2	20	—	20	—
Robinson Oil Co.	26(R)	1	26	0	0	26
Rock Island Refining Corp.	209	3	209	0	0	209
Sahara Oil Co., Inc.	32	1	32	0	7	23
Santee Oil Co., Inc.	37	1	15	—	10	5
Save-X, U.S.A., Inc.	33(S)	2	10	—	—	10
Sears Oil Co., Inc.	12	1	12	0	11	1
Self Service Oil Co.	16	4	16	0	0	16
Shay Oil Co., Inc.	20	2	20	0	2	18
Shelby Petroleum Corp.	20	2	20	0	0	20
Shell Oil Co.	11,129	40	4,965	6,164	4,619	346
Shotmeyer Bros. Pet. Corp.	47	1	46	—	22	0
Shotmeyer Oil Corp.	35	1	35	0	27	—
The SICO Co.	210	3	210	0	94	25
Simon Oil Co., Inc.	123	1	112	—	111	1
Smith-Shafer Oil Co.	6	1	6	0	0	6
SMO, Inc.	55(T)	2	55	0	33	22
Somerset Refinery, Inc.	34	1	34	0	5	8
Southern Oil Co., Inc.	15	1	—	—	2	12
Southern States Co-op	77	5	—	—	—	—
The Spencer Companies, Inc.	55(U)	1	14	—	4	4
Standard Oil Co. (Ohio)	7,930(V)	19	2,900	5,030	1,480	900
Stewart Petroleum Co.	16	2	16	0	4	11
Sun Refining & Marketing Co.	5,830(AA)	29	2,664	3,166	5,773	57
Tanana Oil Corp.	18	8	18	0	—	—
Taylor Oil Co.	54	2	—	—	—	—
TCR Inc.	24	3	24	0	3	21
Tenneco Oil—P&M	448	13	448	0	3	445
Texaco Inc.	18,718	47	3,692	15,026	2,950	147
Texas City Refining Co.	21(W)	2	21	0	0	21
Texas Star Oil Co.	18	1	18	0	—	—
Thornhill Oil Co., Inc.	26	1	0	26	21	5
Tooley Oil Co.	8	1	8	0	0	8
Total Petroleum, Inc.	1,942(X)	21	445	1,497	1,497	445
Traction Oil Co., Inc.	50	1	50	0	50	0
Triton, Inc.	45	4	45	0	0	45
Ultramar Petroleum, Inc.	103	2	12	3	12	—
Unocal Corp.	10,763	41	2,955	7,808	1,983	147
Waco Oil Co. Inc.	15	2	15	0	0	15
Wake Up Oil Co., Inc.	40	1	40	0	0	40
Warelubco, Inc.	91	5	91	0	0	91
Wesson Inc.	32	1	32	0	20	0
Western Marketing Inc.	75	1	75	0	1	35
Wickland Oil Co.	85	3	85	—	—	85
York Oil Co., Inc.	11	1	11	—	0	11
Zephyr, Inc.	46	1	—	—	0	46

(X) Includes Huron Valley Oil, Imlay City Oil.
(Y) Includes Pioneer Oil Co., 76 Mini Marts, Inc.

				BRANDED JOBBERS/COMMISSIONED AGENTS			
					Number selling . . .		
Commission-operated	Full-service only	Self-service only	Self-service/Full-service	Total	Gasoline only	Fuel Oil only	Gasoline/Fuel Oil
20	0	21	1	0	0	0	0
0	0	12	2	0	0	0	0
—	0	10	0	—	—	—	—
—	10	74	21	4	0	0	4
—	55	0	0	—	—	—	—
76	70	10	—	55	0	0	55
—	—	214	—	0	0	0	0
150	0	275	0	0	0	0	0
223	0	266	0	223	221	0	2
0	0	4	0	—	—	—	—
—	0	0	20	—	—	—	—
0	0	26	0	0	0	0	0
0	—	—	—	0	0	0	0
2	3	27	2	27	25	0	2
0	0	2	13	—	—	—	—
—	—	8	2	23	—	—	—
0	10	2	0	0	0	0	0
0	0	16	0	0	0	0	0
0	0	20	0	20	20	—	—
0	20	0	0	0	0	0	0
0	438	1,241	3,268	494	—	—	—
24	46	0	0	0	0	0	0
12	35	0	0	0	0	0	0
91	87	103	20	0	0	0	0
—	50	6	56	0	0	0	0
0	0	5	1	0	0	0	0
5	4	10	33	5	5	0	0
21	0	0	34	—	—	—	—
1	2	12	1	0	0	0	0
—	—	77	—	—	—	—	—
5	4	5	5	2	0	0	2
520	—	—	—	420	170	—	—
1	0	12	4	—	—	—	—
0	—	—	—	3,166	—	—	—
—	4	6	8	0	0	0	0
—	—	—	—	—	—	—	—
0	1	21	2	0	0	0	0
0	3	445	0	0	0	0	0
696	4,482	9,172	5,064	1,329	—	—	—
0	—	—	—	0	0	0	0
—	0	18	0	—	—	—	—
0	4	6	15	0	0	0	0
0	0	8	0	0	0	0	0
0	0	815	1,127	540	0	0	540
0	50	0	0	—	—	—	—
0	0	44	1	—	—	—	—
3	14	—	1	5	0	0	5
4	100	2,637	8,026	591	—	—	—
0	0	15	0	—	—	—	—
0	1	0	39	0	0	0	0
0	0	8	62	1	0	0	1
8	8	—	—	2	—	—	2
39	0	75	0	—	—	—	—
—	1	84	—	—	0	—	—
1	0	12	0	0	0	0	0
0	10	30	—	6	0	0	6

(Z) Includes Sigmor Retail

(AA) Includes Herr Gas & Oil Co., Mid-States Oil Co., Montour AutoService Co., Mascot Petroleum Co., Stop-N-Go Foods, Inc. King Kwik Minit Markets, Inc.

BULK PLANTS				TERMINALS				
	Company-operated				Company-operated			
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	Company
0	0	0	0	0	0	0	0	Pride Oil Co., Inc. (Miss.)
0	0	0	0	0	0	0	0	Pride Oil Co., Inc. (Tenn.)
—	—	—	—	—	—	—	—	Promena, Inc.
6	6	0	0	3	3	0	0	Publix Oil Co., Inc.
—	—	—	—	—	—	—	—	Pyramid Oil Co.
2	2	0	3	3	3	—	—	Quaker State Oil Refining Corp.
0	0	0	0	0	0	0	0	Quiktrip Corp.
0	0	0	0	0	0	0	0	Racetrack Petroleum, Inc.
0	0	0	0	0	0	0	0	Remote Services Inc.
0	0	0	—	0	0	0	—	Republic Oil Corp.
1	1	—	—	—	—	—	—	River Oil Co.
0	0	0	0	0	0	0	0	Robinson Oil Co.
0	0	0	0	0	0	0	0	Rock Island Refining Corp.
2	0	2	2	—	—	—	—	Sahara Oil Co., Inc.
4	4	0	0	0	0	0	0	Santee Oil Co., Inc.
1	1	—	—	0	0	0	0	Save-X, U.S.A., Inc.
0	0	0	0	4	4	0	0	Sears Oil Co., Inc.
0	0	0	0	0	0	0	0	Self Service Oil Co.
1	1	0	0	—	—	—	—	Shay Oil Co., Inc.
1	1	0	0	0	0	0	0	Shelby Petroleum Corp.
82	82	0	823	11	11	0	—	Shell Oil Co.
1	1	0	0	1	1	0	0	Shotmeyer Bros. Pet. Corp.
0	0	0	0	3	3	0	0	Shotmeyer Oil Corp.
12	12	0	0	1	1	0	0	The SICO Co.
0	0	0	0	0	0	0	0	Simon Oil Co., Inc.
0	0	0	0	0	0	0	0	Smith-Shafer Oil Co.
11	11	0	0	1	1	0	0	SMO, Inc.
1	1	0	0	1	1	0	0	Somerset Refinery, Inc.
1	1	0	0	1	1	0	0	Southern Oil Co., Inc.
40	40	—	40	2	2	0	0	Southern States Co-op
0	0	0	0	0	0	0	0	The Spencer Companies, Inc.
100	0	100	—	75	75	0	275	Standard Oil Co. (Ohio)
13	—	—	—	13	—	—	—	Steuart Petroleum Co.
—	—	—	—	39	—	0	—	Sun Refining & Marketing Co.
0	0	0	0	0	0	0	0	Tanana Oil Corp.
0	0	0	0	2	2	—	0	Taylor Oil Co.
0	0	0	0	0	0	0	0	TCR Inc.
2	2	0	—	25	25	0	—	Tenneco Oil—F&M
0	0	0	986	76	72	4	—	Texaco Inc.
0	0	0	0	2	2	—	5	Texas City Refining Co.
—	—	—	—	—	—	—	—	Texas Star Oil Co.
3	3	0	0	0	0	0	0	Thornhill Oil Co., Inc.
0	0	0	0	0	0	0	0	Tooley Oil Co.
2	2	0	87	8	8	0	—	Total Petroleum, Inc.
—	—	—	—	—	—	—	—	Trenton Oil Co., Inc.
0	0	0	0	1	1	0	0	Triton, Inc.
8	8	0	0	10	10	0	0	Ultramar Petroleum, Inc.
222	65	157	496	54	54	0	0	Unocal Corp.
0	0	0	0	0	0	0	0	Waco Oil Co., Inc.
0	0	0	0	0	0	0	0	Wake Up Oil Co., Inc.
1	—	—	—	0	0	0	0	Warstubco, Inc.
2	—	—	—	2	—	—	—	Wesson Inc.
1	1	—	—	0	0	0	0	Western Marketing Inc.
0	—	—	—	1	1	—	—	Wickland Oil Co.
3	3	0	0	0	0	0	0	York Oil Co., Inc.
0	0	0	6	2	2	0	0	Zephyr, Inc.

Branded Retail Outlets

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED†	New England					Middle Atlantic			
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.
Acme Retail Inc.	48(A)	2	—	—	—	—	—	—	—	—	—
Advanced Oil Co.	30	2	—	—	—	—	—	—	23	7	—
Agway Petroleum Corp.	170	[illegible]	8	4	8	2	1	3	61	12	[illegible]
American Petrofina Inc.	4,249(B)	24	—	—	—	—	—	—	—	—	—
Amoco Oil Co.	15,077(C)	36	—	—	—	206	16	199	370	477	826
The Arnold Companies	96	6	—	—	—	—	—	—	—	—	—
Ashland Oil, Inc.	1,914(D)	13	—	—	—	—	—	—	[illegible]	—	[illegible]
Automatic Comfort Corp.	35	1	—	—	—	—	—	35	—	—	—
Aztex Energy Co.	80	1	—	—	—	—	—	—	—	—	—
Baywell Oil Co., Inc.	20	2	—	—	—	—	—	—	—	—	—
Best Oil Co.	17	1	—	—	—	—	—	—	—	—	17
Browning Oil Co.	24	1	—	—	—	—	—	—	—	—	—
Campbell Oil Co. (Ohio)	71(E)	1	—	—	—	—	—	—	—	—	—
Campbell Oil Co. (N.Y.)	98	2	—	—	—	—	—	—	91	—	7
Cannon Oil Corp.	20	3	—	—	—	—	—	—	—	—	—
Cel Oil Products Corp.	8	1	—	—	—	—	—	—	—	—	—
Center Independent Oil Co.	50	1	—	—	—	—	—	—	—	—	50
Certified Oil Co.	166	3	—	—	—	—	—	—	—	—	—
Charter Marketing Co.	406	9	2	12	—	[illegible]	—	[illegible]	—	—	—
Chevron Corp.	18,845	43	334	176	127	329	64	315	845	820	961
Citro Gasoline Corp.	100	2	—	—	2	—	—	—	[illegible]	—	—
Circle K Corp.	45	5	—	—	—	—	—	—	—	—	—
Citgo Petroleum Corp.	6,370	39	136	89	69	208	23	52	474	197	154
Coen Oil Co.	250	3	—	—	—	—	—	—	—	—	75
Colonial Oil Industries Inc.	83(F)	3	—	—	—	—	—	—	—	—	—
Como Oil Co.	26	2	—	—	—	—	—	—	—	—	—
Conoco Inc.	6,276(G)	38	—	—	—	—	—	—	—	—	1
Consumers Gasoline Stations Inc.	29	3	—	—	—	—	—	—	—	—	—
Consumers Oil Corp. of Trenton, N.J.	24	2	—	—	—	—	—	—	—	20	4
Crown Central Petroleum Corp.	247	7	—	—	—	—	—	—	—	—	2
Crystal Flash Petroleum Corp.	17	1	—	—	—	—	—	—	—	—	—
C.S.C. Oil Co.	21	2	—	—	—	—	—	—	—	—	—
Dubois Oil Co.	32(H)	3	—	—	—	7	[illegible]	—	—	—	—
Derby Refining Co.	469	12	—	—	—	—	—	—	—	—	—
Dixie Oil Co.	105	3	—	—	—	—	—	—	—	—	—
East Coast Oil Corp.	33	1	—	—	—	—	—	—	—	—	—
E.M. Bailey Dist. Co.	44	3	—	—	—	—	—	—	—	—	—
Englefield Oil Co.	245	2	—	—	—	—	—	—	—	—	—
Exxon Co., U.S.A.	17,427	39	[illegible]	119	28	[illegible]	30	[illegible]	[illegible]	[illegible]	[illegible]
Farm & Home Oil Co.	28	1	—	—	—	—	—	—	—	—	28
Farmland Industries, Inc.	782	17	—	—	—	—	—	—	—	—	—
Fortmeyer's Inc.	2	1	—	—	—	—	—	—	—	—	—
Foster Oil Co.	57	1	—	—	—	—	—	—	—	—	—
Gas City Ltd.	42	2	—	—	—	—	—	—	—	—	—
Gem Petroleum Inc.	342	2	—	—	—	—	—	—	—	—	—
Getty Petroleum Corp.	1,553	11	33	19	5	184	35	131	618	349	139
Global Petroleum Corp.	10	1	—	—	—	10	—	—	—	—	—
Highway Oil, Inc.	216(J)	24	—	2	2	—	—	—	23	—	22
Hughes Oil Co.	80	1	—	—	—	—	—	—	—	—	—
Hull Oil Co.	31	2	—	—	—	—	—	—	—	—	—
Independent Stations Co.	3	1	—	—	—	—	—	—	—	—	3
J. & L. Oil, Inc.	60	3	—	—	—	—	—	—	—	—	—
Johnson Products Inc.	68	6	30	16	4	7	3	—	8	—	—
K E David Ltd.	13	1	—	—	—	—	—	—	—	—	13
Kelley Williamson Co.	46	2	—	—	—	—	—	—	—	—	—
Kerr-McGee Refining Corp.	1,879	20	—	—	—	—	—	—	—	—	—
Kickapoo Oil Co., Inc.	60	1	—	—	—	—	—	—	—	—	—
Kimber Petroleum Corp.	150	1	—	—	—	—	—	—	—	150	—
Kimbro Oil Co.	41	1	—	—	—	—	—	—	—	—	—
Kingston Oil Supply Corp.	60(K)	1	—	—	—	—	—	—	60	—	—

---

†Includes District of Columbia
(A) Includes Pacemaker Corp.
(B) Includes Finaserve, Inc.
(C) Includes Omega Oil Company (63 outlets)

in the United States

South Atlantic									East North Central					East South Central			
Del.	Md.	D.C.	Va.	W.Va.	N.C.	S.C.	Ga.	Fla.	Ohio	Ind.	Ill.	Mich.	Wis.	Ky.	Tenn.	Ala.	Miss.
—	—	—	—	—	30	15	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	15	—	93	193	429	455	—	—	4	—	—	7	215	116	39
21	301	46	490	—	1,039	448	750	703	523	654	1,170	795	523	14	730	597	477
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
—	—	—	28	328	—	—	—	—	322	57	21	23	70	881	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30	—	—
—	1	—	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	24	—	—	—
—	—	—	—	—	—	—	—	—	71	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	8	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	11	—	—	—	—	150	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	1	40	—	—	—	—	—	—	—	—	49
30	206	22	566	312	59	101	959	859	337	16	—	3	—	943	109	945	504
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	26	—	—	—	—	—	—	—	—	9	—
16	56	—	348	16	214	89	235	548	81	73	156	122	217	25	185	265	97
—	—	—	—	25	—	—	—	—	150	—	—	—	—	—	—	—	—
—	—	—	—	—	8	27	30	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—
5	—	—	27	6	97	25	46	46	24	5	62	24	102	13	56	41	66
—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	24	1	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	96	—	44	—	24	14	48	—	—	—	—	—	—	—	—	19	—
—	—	—	—	—	—	—	—	—	—	17	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	12	—	—	—	—	9	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	20	—	—	4	1	—	—
—	—	—	—	—	—	—	60	38	—	—	—	—	—	—	—	2	—
—	—	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	2	—	—	40	2	—	—
—	—	—	—	28	—	—	—	—	217	—	—	—	—	—	—	—	—
18	487	64	882	563	1,860	952	585	581	9	—	—	—	—	—	886	451	244
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	4	5	—	15	—	—	—	—
—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	37	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	1	41	—	—	—	—	—	—
—	—	—	—	—	—	—	29	313	—	—	—	—	—	—	—	—	—
30	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	5	—	—	5	—	—	1	30	32	10	—	3	—	8	7	2	2
—	—	—	—	—	—	—	—	60	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	30	—	—	—	—	—	—	—	1	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	6	—	—	—	41	—	13	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	41	—	4	—	—	—	—
—	—	—	1	—	—	—	—	9	—	23	125	—	119	12	25	10	9
—	—	—	—	—	—	—	—	—	—	—	—	—	60	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

(D) Includes Prestige Stations, Inc.
(E) Includes Steiner Oil
(F) Includes Interstate Stations Inc., Colonial Interstate, Inc.
(G) Includes Kayo Oil Co.

Branded Retail Outlets (cont'd)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic		
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.
Kirschner Bros. Oil Co.	30	2	—	—	—	—	—	—	—	20	10
Lake Shore Petrocorp	32(M)	2	—	—	—	—	—	—	—	—	—
Land O'Lakes, Inc.	407	3	—	—	—	—	—	—	—	—	—
Lyden Oil Co.	176	1	—	—	—	—	—	—	—	—	—
Marathon Oil Co.	2,361	6	—	—	—	—	—	—	—	—	—
Martin Oil Marketing, Ltd.	52	6	—	—	—	—	—	—	—	—	—
Mauger & Co.	40	1	—	—	—	—	—	—	—	—	40
McDowell Oil Service Inc.	31	1	—	—	—	—	—	—	—	—	31
McLeister Oil, Inc.	90	1	—	—	—	—	—	—	—	—	—
Mid-States Petroleum	96	3	—	—	—	—	—	—	—	—	—
Midwest Petroleum Co.	165(N)	2	—	—	—	—	—	—	—	—	—
Miller Enterprises, Inc. D/B/A	70	1	—	—	—	—	—	—	—	—	—
Miller Oil Co.	62	2	—	—	—	—	—	—	—	—	—
Mobil Oil Corp.	13,310	40	277	175	169	852	83	412	1,745	431	1,058
Murphy Oil USA, Inc.	865	14	—	—	—	—	—	—	—	—	—
Musket Corp.	143	9	—	—	—	—	—	—	—	—	—
National Convenience Stores, Inc.	94(O)	4	—	—	—	—	—	—	—	—	—
National Oil & Gas Inc.	88	2	—	—	—	—	—	—	—	—	—
NOCO Energy Corp.	28	1	—	—	—	—	—	—	28	—	—
Northville Industries Corp.	30	1	—	—	—	—	—	—	30	—	—
Parker Oil Co. Inc.	157	2	—	—	—	—	—	—	—	—	—
PDQ Food Stores, Inc.	76	5	—	—	—	—	—	—	—	—	—
Pennzoil Products Co.	630	7	—	—	—	—	—	—	16	—	174
Pester Corp.	215	10	—	—	—	—	—	—	—	—	—
Petroleum Marketers, Inc.	64(P)	2	—	—	—	—	—	—	—	—	—
Phillips Petroleum Co.	10,505	34	—	—	—	—	—	—	—	—	23
Pilot Oil Corp.	110	14	—	—	—	—	—	—	—	1	1
Pride Oil Co. Inc.	22	2	—	—	—	—	—	—	—	—	—
Pride Oil Co., Inc.	14	1	—	—	—	—	—	—	—	—	—
Pyramid Oil Co.	55	1	—	—	—	—	—	—	—	55	—
Quaker State Oil Refining Corp.	88	4	—	—	—	—	—	—	30	—	25
Racetrac Petroleum, Inc.	275	13	—	—	—	—	—	—	—	—	—
Remote Services Inc.	288	8	—	4	—	—	—	—	11	—	—
River Oil Co.	24	1	—	—	—	—	—	—	—	—	—
Rock Island Refining Corp.	209	3	—	—	—	—	—	—	—	—	—
Santee Oil Co.	37	1	—	—	—	—	—	—	—	—	—
Save-X, U.S.A., Inc.	33(S)	2	—	—	—	—	—	—	—	—	—
Self Service Oil Co.	16	4	—	—	—	—	—	—	—	—	—
Shelby Petroleum Corp.	20	2	—	—	—	—	—	—	—	—	—
Shell Oil Co.	11,129	40	—	15	—	244	61	166	220	290	33
Shotmeyer Bros. Petroleum	47	1	—	—	—	—	—	—	—	47	—
Shotmeyer Oil Corp.	35	1	—	—	—	—	—	—	—	35	—
SICO Co.	210	3	—	—	—	—	—	—	—	80	144
Simon Oil Co., Inc.	123	1	—	—	—	—	—	—	123	—	—
Smith-Shafer Oil Co.	6	1	—	—	—	—	—	—	—	—	—
SMO, Inc.	55(T)	2	—	—	—	—	—	—	—	—	—
Somerset Refinery, Inc.	34	1	—	—	—	—	—	—	—	—	—
Southern Oil Co., Inc.	15	1	—	—	—	—	—	—	—	—	—
Southern States Co-op	77	5	—	—	—	—	—	—	—	—	—
M. Spiegel & Sons Oil Corp.	45	1	—	—	—	—	—	—	45	—	—
The Spencer Companies, Inc.	65(U)	1	—	—	—	—	—	—	—	—	—
Standard Oil Co. (Ohio)	7,930(V)	19	30	60	40	180	—	40	—	150	370
Steuart Petroleum Co.	16	2	—	—	—	—	—	—	—	—	—
Sun Refining & Marketing Co.	5,830	29	55	36	7	321	92	144	560	472	764
Tenana Oil Corp.	16	8	—	—	—	—	—	—	4	—	—
TCR, Inc.	24	3	—	—	—	—	—	—	—	—	—
Tenneco Oil-P&M	446	18	—	—	—	—	—	—	—	—	—
Texaco Inc.	18,718	47	190	115	109	482	96	337	494	457	844
Texas City Refining, Inc.	21(W)	3	—	—	—	—	—	—	—	—	—
Thornhill Oil Co., Inc.	26	1	—	—	—	—	—	—	—	—	—
Total Petroleum, Inc.	1,942(X)	21	—	—	—	—	—	—	—	—	—

(H) Includes Beacon Oil Co.
(I) Includes Marion Knudson, Inc.
(J) Includes Hi-Lo Oil Co., Inc., Cook Oil Co., Inc., Workingman's Friend Oil, Inc., Fairway Oil, Inc.
(K) Includes Amos Post Co., Paramount Oil Co.

South Atlantic									East North Central					East South Central			
Del.	Md.	D.C.	Va.	W.Va.	N.C.	S.C.	Ga.	Fla.	Ohio	Ind.	Ill.	Mich.	Wis.	Ky.	Tenn.	Ala.	Miss.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	1	31	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	8	89	—	—	—	—
—	—	—	—	—	—	—	—	—	176	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	787	531	365	549	4	125	—	—	—
—	—	—	—	—	—	—	2	—	1	18	29	1	1	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	60	—	—	—	—	—
—	—	—	—	—	—	—	—	—	3	15	—	78	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	35	—	—	—	—	—	—
—	—	—	—	—	—	—	—	70	—	—	—	—	—	—	—	—	—
—	—	—	56	—	6	—	—	—	—	—	—	—	—	—	—	—	—
56	148	1	207	29	149	40	25	404	366	216	465	596	577	26	293	24	—
—	—	—	27	—	27	9	68	107	—	—	—	3	99	3	73	76	14
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	13	—	1
—	—	—	—	—	—	—	—	—	4	84	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	152	—	5	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—
—	—	—	—	132	—	—	—	—	271	12	—	8	—	17	—	—	—
—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—
—	—	—	59	5	—	—	—	—	—	—	—	—	—	—	—	—	—
—	64	—	315	67	692	333	384	577	110	393	601	92	291	180	340	336	183
—	—	—	16	1	8	1	9	9	2	1	—	—	—	14	43	2	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	20
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	23	—	—	—	—	20	—	—	—	—	—	—	—	—
—	1	—	10	—	4	8	33	24	—	—	—	—	—	—	8	158	4
—	—	—	—	—	12	—	—	22	—	17	27	—	—	138	17	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24	—	—
—	—	—	—	—	—	—	—	—	9	120	—	80	—	—	—	—	—
—	—	—	—	—	—	37	—	—	—	—	—	—	—	—	—	—	—
—	—	—	30	—	3	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	4	—	6	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	8	—	—
39	285	10	360	8	456	285	561	690	462	347	680	684	129	304	288	356	311
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—
1	54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	34	—	—	—
—	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	20	—	20	18	—	—	—	—	—	—	—	—	—	16	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	56	—
—	—	—	160	20	910	490	980	580	1400	—	—	250	—	540	700	560	470
—	13	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
49	121	18	43	48	105	11	0	0	524	219	397	431	0	124	36	0	0
—	1	—	—	—	—	—	—	3	3	—	—	—	—	—	3	1	—
—	—	—	—	—	—	—	1	9	—	—	—	—	—	—	—	14	—
—	—	—	7	1	24	28	44	131	—	—	—	—	—	11	38	38	7
74	270	12	673	61	952	471	641	790	—	15	254	—	5	100	524	724	440
—	—	—	—	—	—	—	1	9	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	26	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	5	10	5	528	45	3	19	—	—

(L) Includes North Iowa Oil, Chieftain Corp., Lil' Jimmy's Quick Shops
(M) Includes Tri Mart Inc.
(N) Includes Bolch Oil Co.
(O) Includes Stop N Go Markets of Texas, Inc., Hot Stop Markets, Colonial Food Stores, Inc.

Branded Retail Outlets (cont'd.)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic		
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.
Trenton Oil Co., Inc.	50	1	—	—	—	—	—	—	—	50	—
Triton Inc.	45	4	—	—	—	—	—	—	—	—	—
Ultramar Petroleum Inc.	100	2	—	—	—	11	—	—	[illegible]	—	—
Unocal Corp.	10,763	41	—	—	—	—	—	2	2	30	—
Wake Up Oil Co., Inc.	40	1	—	—	—	—	—	—	—	—	—
A.T. Williams Oil Co.	74	2	—	—	—	—	—	—	—	—	—
J.H. Williams Oil Co. Inc.	60	1	—	—	—	—	—	—	—	—	—
York Oil Co., Inc.	11	1	—	—	—	—	—	—	—	—	—
Zephyr Inc.	48	1	—	—	—	—	—	—	—	—	—

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	West North Central						
			Minn.	Iowa	Mo.	N.D.	S.D.	Neb.	Kan.
Ada Resources & Energy, Inc.	145	1	—	—	—	—	—	—	—
American Petrofina, Inc.	4,249	24	41	56	205	6	38	75	[illegible]
Amoco Corp.	15,077	36	623	464	532	280	103	169	[illegible]
Anchor Gasoline Corp.	100	1	—	—	—	—	—	—	—
Arkansas Valley Petroleum	31	1	—	—	—	—	—	—	—
Arnold Cos.	96	6	—	—	—	—	—	—	—
Ashland Oil, Inc.	1,914	15	89	16	4	1	5	—	—
Atlantic Richfield Co.	1,748	6	—	—	—	—	—	—	—
Brennan Petroleum Co.	2	1	—	—	—	—	—	—	—
California Target Enterprises, Inc.	150	1	—	—	—	—	—	—	—
Cenex	1,087	11	319	4	—	258	157	3	—
Chapman, Inc.	36	1	—	—	—	—	—	—	—
Charter Marketing Co.	406	9	—	—	—	—	—	—	—
Chevron Corp.	18,845	43	—	—	2	—	—	—	—
Circle K Corp.	46	5	—	—	—	—	—	—	—
Citgo Petroleum Corp.	6,370	39	53	37	119	—	—	1	29
Como Oil Co.	28	2	22	—	—	—	—	—	—
Conoco, Inc.	6,276	38	148	258	386	103	101	235	228
Corr's Oil Co.	8	1	—	—	—	—	—	—	—
Curtis [illegible] Oil Co., Inc.	32	1	—	—	—	—	—	—	—
Derby Refining Co.	489	12	8	108	81	—	3	44	[illegible]
Diamond Shamrock Refining & Marketing Corp.	2,034	12	—	—	4	—	—	90	41
Dickey Inc.	7	1	—	7	—	—	—	—	—
DWF, Inc.	8	2	—	—	—	—	—	—	—
Exxon Company, U.S.A.	17,427	39	—	—	—	73	4	1	—
Farmland Industries, Inc.	782	17	33	99	36	30	43	134	[illegible]
Franko Oil Co.	90	2	—	—	—	—	—	—	—
General Oil Co., Inc.	39	1	—	—	—	—	—	—	—
Gull Industries, Inc.	115(I)	2	—	—	—	—	—	—	—
Harris Enterprises, Inc.	28	2	—	—	—	—	—	—	—
Highway Oil, Inc.	216	24	—	1	12	1	4	1	24

(P) Includes Stop in Food Stores.
(Q) Includes Dixie Diesel Truck Stops
(R) Includes Mission Trail Oil Co.
(S) Includes Serv-N-Save, Inc.

South Atlantic									East North Central					East South Central			
Del.	Md.	D.C.	Va.	W.Va.	N.C.	S.C.	Ga.	Fla.	Ohio	Ind.	Ill.	Mich.	Wis.	Ky.	Tenn.	Ala.	Miss.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	8	—	11	4	22	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	8	—	346	158	667	256	585	794	486	490	488	677	481	184	474	738	459
—	—	—	—	—	—	—	—	—	—	40	—	—	—	—	—	—	—
—	—	—	35	—	39	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	96	—	—	—	—	—	—	—	—	—
—	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	48	—	—	—	—	—

West South Central				Mountain								Pacific				
Ark.	La.	Okla.	Texas	Mont.	Idaho	Wyo.	Colo.	N.M.	Ariz.	Utah	Nev.	Wash.	Ore.	Calif.	Alaska	Hawaii
—	—	—	145	—	—	—	—	—	—	—	—	—	—	—	—	—
200	104	248	1,374	—	—	—	5	159	1	—	—	—	—	—	—	—
—	615	—	130	—	89	112	247	—	—	31	—	—	—	—	—	—
—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—
44	2	1	29	—	—	—	19	—	—	—	—	—	—	—	—	—
—	—	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	51	—	47	265	179	1,187	—	19
—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	150	—	—
—	—	—	—	23	28	7	—	—	—	16	—	62	40	—	—	—
—	—	—	36	—	—	—	—	—	—	—	—	—	—	—	—	—
—	83	—	95	—	—	—	—	—	—	—	—	—	—	—	—	—
624	819	357	2,967	68	134	38	104	300	211	140	108	487	314	2,071	125	157
—	—	—	—	—	1	—	—	—	7	—	—	—	—	2	—	—
132	320	163	1,031	—	—	—	181	37	—	123	—	—	—	1	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
266	563	543	996	382	89	125	569	212	19	211	11	139	95	—	—	—
—	—	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	—	20	7	—	—	—	—	—	—	—	—	—	—	—	—	—
46	26	17	1,513	—	—	12	131	94	0	30	1	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	7	1	—	—	—	—	—	—	—	—	—	—	—	—	—
618	922	123	2,829	278	48	31	97	174	362	—	48	278	168	1,041	—	—
4	—	96	23	4	4	4	68	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	30	60	—	—	—
39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	95	20	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	(X)	(X)	—	—	—
—	—	—	12	—	—	4	3	—	—	—	—	—	—	—	—	—

(T) Includes Delmarva Oil, Inc.
(U) Includes Alabama Oil Co., Mid-South Oil Co.
(V) Includes Boron Oil Co., BP Oil Inc. Also includes Gulf outlets in the Southeast acquired by Standard Oil.
(W) Includes TCR, Inc.

Branded Retail Outlets (cont'd.)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	West North Central						
			Minn.	Iowa	Mo.	N.D.	S.D.	Neb.	Kan.
Kent Distributors, Inc.	26	1	—	—	—	—	—	—	—
Kerr-McGee Refining, Corp.	1,879	20	46	147	123	11	39	—	272
Krause Gentle Oil Corp.	78(L)	1	—	78	—	—	—	—	—
Kwik Shop, Inc.	144	4	—	38	—	—	—	42	61
Land O'Lakes, Inc.	407	7	105	132	—	7	—	63	3
Lokey Oil Co.	23	1	—	—	—	—	—	—	—
Merritt Truax, Inc.	34	1	—	—	—	—	—	—	—
Mid-Missouri Oil Co.	9	1	—	—	9	—	—	—	—
Midwest Petroleum Co.	165	2	—	—	130	—	—	—	—
Missouri Terminal Oil Co.	16	1	—	—	16	—	—	—	—
Mobil Oil Corp.	13,310	40	408	55	293	26	—	—	—
Murphy Oil USA, Inc.	585	14	51	—	—	—	—	—	—
Musket Corp.	143	9	—	—	3	—	—	—	23
National Convenience Stores, Inc.	94	4	—	—	—	—	—	—	—
Neal Inc.	33	1	—	—	—	—	—	—	—
Newell Oil Co., Inc.	15	1	—	—	—	—	—	—	—
Olympian Oil Co.	50	1	—	—	—	—	—	—	—
Pacer Oil Co.	20	1	—	—	—	—	—	—	—
PDQ Food Stores, Inc.	76	5	9	—	1	—	—	—	—
Pester Corp.	215	10	10	95	33	—	5	12	18
Petrotex Marketing, Inc.	31	1	—	—	—	—	—	—	—
Phillips Petroleum Co.	10,505	34	425	437	727	33	131	276	339
Pilot Oil Co.	110	14	—	—	—	—	—	—	—
Pride of Texas Dist. Co., Inc.	26	1	—	—	—	—	—	—	—
Promana, Inc.	10	1	—	—	—	—	—	—	—
Quiktrip Corp.	214	4	—	50	45	—	—	—	52
Racetrac Petroleum, Inc.	275	13	—	—	1	—	—	—	—
Remote Services, Inc.	268	9	—	1	—	—	—	—	—
Republic Oil Corp.	4(Q)	1	—	—	—	—	—	—	—
Robinson Oil Co., Inc.	26(R)	1	—	—	—	—	—	—	—
Sahara Oil Co., Inc.	32	1	—	—	—	—	—	—	—
Self Service Oil Co.	16	4	—	1	5	—	—	—	—
Shay Oil Co., Inc.	20	2	—	—	—	—	—	—	—
Shell Oil Co.	11,129	40	—	27	222	—	—	—	—
Sun Refining & Marketing Co.	5,830	29	0	499	242	0	0	17	8
Tanana Oil Corp.	18	8	—	—	—	—	—	—	2
Tenneco Oil	448	13	—	—	—	—	—	—	—
Texaco Inc.	18,718	47	211	240	392	—	61	135	237
Texas Star Oil Co.	18	1	—	—	—	—	—	—	—
Time Saver Stores Inc.	136	1	—	—	—	—	—	—	—
Tooley Oil Co.	8	1	—	—	—	—	—	—	—
Total Petroleum, Inc.	1,942	21	71	129	356	3	33	85	307
Unocal Corp.	10,763	41	316	95	9	—	17	5	1
Western Marketing, Inc.	75	1	—	—	—	—	—	—	—
Wickland Oil Co.	85	3	—	—	—	—	—	—	—

(X) Includes Huron Valley Oil, Imlay City Oil.

West South Central				Mountain								Pacific				
Ark.	La.	Okla.	Texas	Mont.	Idaho	Wyo.	Colo.	N.M.	Ariz.	Utah	Nev.	Wash.	Ore.	Calif.	Alaska	Hawaii
—	—	—	26	—	—	—	—	—	—	—	—	—	—	—	—	—
229	6	440	218	—	—	—	—	15	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	23	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	34	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
72	243	64	1,041	—	—	—	—	8	213	—	21	356	326	1,452	—	—
8	34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	1	77	21	—	—	—	8	2	—	—	—	—	—	—	—	—
—	—	—	79	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	39	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	50	—	—
—	—	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	50	—	—	—	5	—	—	—	—	—
—	—	—	—	—	—	3	40	—	—	—	—	—	—	—	—	—
—	—	—	31	—	—	—	—	—	—	—	—	—	—	—	—	—
269	184	575	1,383	—	95	58	282	146	—	157	7	—	—	—	—	—
—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
—	—	—	26	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
—	—	67	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	9	—	12	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	26	—	—
—	—	—	—	—	—	—	—	—	32	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	19	—	—	—	—	1	—	—
89	472	—	620	—	43	—	12	103	40	12	51	306	263	1,520	—	65
4	0	502	3	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	41	—	65	—	—	—	14	—	—	—	—	—	—	—	—	—
441	838	599	2,946	—	93	81	306	188	184	163	70	483	352	1,457	98	53
—	—	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—
—	136	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—
17	6	223	29	—	—	—	44	12	12	—	—	—	—	—	—	—
94	37	3	53	—	10	—	1	2	138	35	54	285	206	1,847	98	130
—	—	—	75	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	1	—	5	79	—	—

Average Number of Employees

(As of Jan. 1, 1985)

	Mining	Manufacturing		Transportation		Wholesale	Retail	
	Oil and Gas Extraction	Petroleum Refining	Oils and Greases	Pipelines, Except Gas	Gas Distribution	Petroleum Products	Gasoline Stations	Total
Alabama	1,872	372	30	96	3,033	4,869	7,317	17,591
Alaska	8,159	204	2	1,035	313	531	1,270	11,514
Arizona	162	†	†	101	1,093	1,434	7,582	10,372
Arkansas	4,044	680	†	†	2,479	2,710	4,624	14,537
California	41,393	27,188	735	1,057	11,287	16,052	61,577	159,289
Colorado	25,329	802	45	108	2,298	2,686	8,289	39,556
Connecticut	169	†	80	†	1,290	2,575	9,243	13,357
Delaware	33	955	10	0	326	262	1,360	2,966
District of Columbia	47	110	0	0	684	232	1,066	2,139
Florida	1,081	58	193	60	2,203	7,006	29,044	39,645
Georgia	100	115	110	480	3,711	6,013	15,520	26,049
Hawaii	†	407	0	0	342	549	3,580	4,878
Idaho	104	0	0	17	450	1,545	2,487	4,603
Illinois	7,098	7,003	901	984	8,431	9,908	26,293	60,618
Indiana	935	2,991	210	469	2,963	3,643	14,520	25,731
Iowa	56	0	56	174	1,409	3,225	10,940	15,860
Kansas	16,200	2,500	300	1,800	4,400	2,750	7,650	35,600
Kentucky	3,597	3,486	109	156	3,074	2,819	9,511	22,752
Louisiana	78,000	12,000	600	1,300	7,100	5,700	8,400	113,100
Maine	15	0	0	†	†	1,214	2,544	3,773
Maryland	22	0	254	0	1,212	3,184	13,133	17,805
Massachusetts	79	65	321	†	4,775	3,691	14,173	23,104
Michigan	4,279	1,618	514	259	7,608	5,387	21,370	41,035
Minnesota	†	†	†	213	2,469	2,558	15,437	20,677
Mississippi	8,406	1,670	105	†	2,169	3,622	5,205	21,177
Missouri	135	37	384	266	5,013	6,867	14,937	27,639
Montana	4,293	865	0	87	123	1,509	2,581	9,458
Nebraska	952	42	166	122	3,292	1,849	6,131	12,553
Nevada	408	47	0	19	588	393	3,460	4,915
New Hampshire	1	0	6	3	249	518	2,701	3,470
New Jersey	117	7,684	1,176	172	2,154	4,030	20,017	35,350
New Mexico	13,450	890	33	278	3,656	1,762	4,198	24,267
New York	2,561	10,018	410	134	7,055	10,033	29,246	59,457
North Carolina	8	0	181	115	2,469	5,203	9,271	17,247
North Dakota	5,775	245	155	174	984	2,405	2,174	11,912
Ohio	11,706	5,650	680	654	7,648	5,876	27,915	60,129
Oklahoma	69,758	8,293	415	1,612	5,718	6,091	6,626	98,513
Oregon	181	**	10	**	1,441	2,225	7,736	11,593
Pennsylvania	5,400	10,100	900	700	8,800	10,700	26,500	63,100
Rhode Island	35	†	†	†	849	534	2,377	3,795
South Carolina	21	0	†	†	572	3,498	7,105	11,196
South Dakota	154	†	†	64	120	1,441	2,634	4,413
Tennessee	571	184	267	43	1,753	4,588	11,922	19,328
Texas	260,738	37,936	1,061	4,894	28,504	24,910	35,660	393,703
Utah	4,961	**	818	81	2,809	1,646	4,557	14,872
Vermont	0	0	†	0	123	308	1,654	2,085
Virginia	214	245	†	†	2,496	7,620	14,615	25,190
Washington	3,856	1,435	61	84	1,525	2,653	9,533	19,147
West Virginia	6,113	437	203	117	5,398	2,190	3,737	18,195
Wisconsin	27	†	116	154	2,921	3,362	14,107	20,687
Wyoming	16,899	1,023	3	348	1,098	1,277	2,939	23,577
TOTAL	609,516	147,155	11,619	18,432	172,467	207,872	576,488	1,743,529

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†Not available; **Data combined with adjacent categories to preserve confidentiality; Special note: All figures are estimated and do not necessarily agree with the Bureau of Labor Statistics national averages due to confidentiality rules.

Source: Independent Petroleum Assn. of America, "The Oil & Gas Producing Industry in Your State, 1985-1986."

How Distillates Were Used in 1984

(Add 000 gal.)

Use (a)	1984	1983	% Change	% Share of Total Distillates Use in 1984	% Share of Total Distillates Use in 1983
Residential	6,910,211	6,698,189	3.2%	15.8%	16.2%
Commercial	4,904,727	4,720,451	3.9	11.2	11.4
Industrial	2,356,787	2,269,266	3.9	5.4	5.5
Oil Company	908,162	903,424	0.5	2.1	2.2
Farm	2,974,418	2,838,448	4.8	6.8	6.9
Elec. Utils.	689,012	493,248	39.7	1.2	1.2
Railroad	3,456,915	3,201,677	8.0	7.9	7.8
Vessel Bunkering	1,692,045	1,642,539	3.0	3.9	4.0
On-Highway Diesel	16,797,423	15,544,223	8.0	38.4	37.7
Military	696,309	663,748	4.9	1.6	1.6
Off-Highway Diesel	1,673,591	1,616,722	3.5	3.8	3.9
All other	671,514	648,958	3.5	1.5	1.6
U.S. Total	43,731,114	41,240,892	6.0	—	—

(a) In 1984, Energy Information Administration revised its sampling procedures and re-allocated some volumes in some categories; hence these data are not comparable in many respects to similar tables in earlier *Factbook* issues.

Source: Energy Information Administration, "Deliveries of Fuel Oil and Kerosine in 1983 and 1984," Petroleum Marketing Monthly, June 1985.

How Residual Was Used in 1984

(Add 000 gal.)

Use (a)	1984	1983	% Change	% Share of Total Residual Use in 1984	% Share of Total Residual Use in 1983
Commercial	1,418,630	1,511,138	(6.1%)	6.7%	6.9%
Industrial	3,963,753	3,932,192	0.8	18.8	18.0
Oil Company	1,162,547	1,201,374	3.2	5.5	5.5
Elec. Utils.	7,825,363	8,577,996	(8.8)	37.2	39.4
Railroad	1,796	1,958	2.1	—	—
Vessel Bunkering	5,687,130	5,724,163	(0.6)	27.0	26.3
Military	222,230	227,262	(2.2)	1.0	1.0
All other	768,908	605,284	27.0	3.7	2.8
U.S. Total	21,050,358	21,781,368	(3.4)	—	—

(a) In 1984, Energy Information Administration revised its sampling procedures and re-allocated some volumes in some categories; hence these data are not comparable in many respects to similar tables in earlier *Factbook* issues.

Source: Energy Information Administration, "Deliveries of Fuel Oil and Kerosine, 1983 and 1984, "Petroleum Marketing Monthly, June 1985.

How Kerosine Was Used in 1984

(Add 000 gal.)

Use (a)	1984	1983	% Change	% Share of Total Kerosine Use in 1984	% Share of Total Kerosine Use in 1983
Residential	516,393	632,499	(18.4%)	29.1%	32.2%
Commercial	799,748	842,479	5.0	45.1	42.9
Industrial	241,425	241,509	—	13.6	12.3
Farm	32,167	34,553	(6.9)	1.8	1.8
All other	182,037	213,745	(14.8)	10.3	10.9
U.S. Total	1,771,770	1,964,784	(9.8)	—	—

(a) In 1984, Energy Information Administration revised its sampling procedures and re-allocated some volumes in some categories; hence these data are not comparable in many respects to similar tables in earlier *Factbook* issues.

Source: Energy Information Administration, "Deliveries of Fuel Oil and Kerosine in 1983 and 1984," Petroleum Marketing Monthly, June 1985.

How New Homes Are Heated

Fuel Oil got 16% of the new home construction in New England in 1985, down 1% from the preceding year. It was wiped out in the North Central area, the South and the West. Its nationwide growth was 2%, the same as in 1984.

Region	New Homes Completed (Add 000)	Share of New Homes by Fuels and Percentages			
		Gas	Electric	Oil	Other
Northeast	129	41%	36%	16%	7%
North Central	156	71	19	—	9
South	506	33	64	—	2
West	233	55	39	—	6
Total 1984	1,025	45%	48%	2%	5%
Total 1983	924	43%	49%	2%	6%

Source: U.S. Department of Commerce, Construction Reports C25-84-13, published July 1985.

Gas: Who Uses It for Heat

Gas added more than 713 million new customers in 1984, halting the two-year downtrend in net additions. Even conversions from other fuels showed an increase for the first time in two years. New-home additions were up 29% in 1984, conversions 4% and the net, 28%, American Gas Assn.'s annual home-heating survey says.

Region	% of Gas-Heated Homes to Total Gas-Using Homes	Consumers Added in 1984 (Add 000)		
		New Homes	Existing Homes	Total Added
New England	67.1%	11.4	17.2	28.6
Mid-Atlantic	63.9	51.2	43.7	94.9
East North Central	94.2	74.2	29.5	103.7
West North Central	95.3	48.6	7.0	55.6
South Atlantic	90.8	52.9	20.8	73.7
East South Atlantic	97.8	19.6	2.8	22.4
West South Atlantic	96.2	61.6	2.2	63.8
Mountain	99.3	63.6	2.4	66.0
Pacific	92.2	193.3	11.4	204.7
Total	88.3%	576.4	137.0	713.4
% Change '84 vs. '83	—	+29.1%	+4.3%	+27.9%

Source: American Gas Assn., Home Heating Survey, 1984.

Gas Heat Equipment Shipments

The upswing of recent years flattened out appreciably for gas-fired equipment sales in 1985, according to Gas Appliance Manufacturers Assn. Central heating furnaces declined 1.5% but boilers rose 7%.

Class and Type of Equipment	1985	1984	% Change
Central Heating:			
Furnaces	1,822,295	1,849,200	(1.5%)
Boilers	192,455	179,870	7.0
Space Heating:			
Wall Furnaces Vented	206,430	179,310	15.1
RV Systems	201,702	190,470	5.9
Water Heaters:			
Gas	3,528,931	3,502,053	0.8
Electric	3,425,283	3,480,845	(0.8)
Oil (a)	34,000	30,000	13.3

(a) Estimated by fuel oil industry sources for comparison.

Source: Gas Appliance Manufacturers Assn.

Distillate Sales in 1984 . . .

(Add 000 gal.)

Destination	Residential 1983	Residential 1984	Commercial 1983	Commercial 1984	Industrial 1983	Industrial 1984
PAD District 1						
New England States						
Connecticut	392,233	399,801	136,572	139,207	33,836	34,489
Maine	136,803	139,442	59,117	60,258	14,267	14,542
Massachusetts	741,292	755,594	229,776	234,209	27,001	27,522
New Hampshire	127,608	130,070	17,070	17,399	3,994	4,071
Rhode Island	122,099	124,455	24,367	24,837	8,179	8,337
Vermont	84,590	86,222	17,848	18,192	5,598	5,706
Central Atlantic States						
Delaware	57,620	58,731	12,762	13,008	9,204	9,381
District of Columbia	23,387	23,838	41,916	42,725	344	351
Maryland	255,928	260,866	117,710	119,981	45,066	45,936
New Jersey	677,065	690,128	302,479	308,315	59,491	60,639
New York	1,241,065	1,265,010	503,453	513,166	105,108	107,136
Pennsylvania	873,817	890,676	240,928	245,576	125,802	128,229
Lower Atlantic States						
Florida	20,847	21,249	91,384	93,147	60,893	62,068
Georgia	9,489	9,672	91,225	92,985	33,414	34,058
North Carolina	235,597	240,142	123,761	126,149	51,932	52,934
South Carolina	49,560	50,517	35,111	35,789	24,570	25,044
Virginia	227,743	232,137	115,672	117,903	52,726	53,743
West Virginia	20,830	21,232	22,460	22,894	54,364	55,413
Total	**5,297,573**	**5,399,783**	**2,183,611**	**2,225,741**	**715,788**	**729,599**
PAD District 2						
Illinois	81,323	87,290	199,285	213,906	55,114	59,158
Indiana	102,030	109,516	130,528	140,105	77,494	83,180
Iowa	42,792	45,932	51,610	55,396	12,196	13,091
Kansas	1,797	1,929	38,793	41,639	16,693	17,917
Kentucky	28,663	30,766	66,863	71,769	68,429	73,449
Michigan	208,595	223,900	105,049	112,756	60,443	64,878
Minnesota	132,146	141,842	115,546	124,024	26,916	28,891
Missouri	29,624	31,797	68,445	73,467	22,491	24,141
Nebraska	10,464	11,232	35,105	37,681	5,845	6,274
North Dakota	38,632	41,467	17,834	19,142	13,713	14,719
Ohio	131,605	141,260	150,880	161,950	97,788	104,963
Oklahoma	3,171	3,403	25,209	27,059	71,160	76,381
South Dakota	25,644	27,526	9,195	9,870	4,235	4,546
Tennessee	11,042	11,853	83,962	90,123	26,068	27,980
Wisconsin	209,255	224,608	158,668	170,309	17,992	19,312
Total	**1,056,783**	**1,134,319**	**1,256,973**	**1,349,197**	**576,578**	**618,881**
PAD District 3						
Alabama	1,905	1,859	40,276	39,313	62,929	61,424
Arkansas	37	36	63,985	62,455	18,808	18,358
Louisiana	121	118	89,283	87,148	61,496	60,026
Mississippi	192	187	37,816	36,912	58,328	56,931
New Mexico	715	698	20,539	20,047	52,711	51,451
Texas	14,532	14,185	377,835	368,799	246,724	240,824
Total	**17,501**	**17,803**	**629,734**	**614,674**	**500,995**	**499,014**
PAD District 4						
Colorado	5,760	5,847	34,499	35,020	26,132	26,527
Idaho	24,770	25,144	16,771	17,024	15,375	15,607
Montana	18,962	19,249	46,616	47,321	19,498	19,793
Utah	6,915	7,020	33,173	33,675	41,090	41,712
Wyoming	13,372	13,574	9,376	9,518	39,328	39,923
Total	**69,779**	**70,836**	**140,436**	**142,558**	**141,423**	**143,562**
PAD District 5						
Alaska	50,390	56,604	43,928	49,346	22,010	24,724
Arizona	23	26	9,096	10,217	42,712	47,980
California	5,364	6,026	289,103	324,757	132,790	149,166
Hawaii	28	31	4,164	4,677	1,940	2,179
Nevada	9,189	10,322	14,670	16,480	20,124	22,605
Oregon	77,887	87,492	75,899	85,259	64,841	72,837
Washington	113,672	127,690	72,838	81,821	50,066	56,241
Total	**256,552**	**288,192**	**509,698**	**572,556**	**334,482**	**375,732**
U.S. Total	**6,698,189**	**6,910,221**	**4,720,451**	**4,904,727**	**2,269,266**	**2,356,767**

. . . By Categories and Uses

(Add 000 gal.)

Destination	Oil Company		Farm		Electric Utility	
	1983	1984	1983	1984	1983	1984
PAD District 1						
New England States						
Connecticut	961	979	2,500	2,549	642	897
Maine	149	152	4,672	4,762	10	14
Massachusetts	1,078	1,098	3,368	3,433	6,945	9,702
New Hampshire	30	31	1,947	1,985	94	132
Rhode Island	569	580	836	852	1,081	1,510
Vermont	92	93	3,073	3,132	720	1,005
Central Atlantic States						
Delaware	703	717	4,361	4,445	4,678	6,534
District of Columbia	243	248	—	—	23,710	33,121
Maryland	3,864	3,939	16,404	16,720	31,072	43,404
New Jersey	7,734	7,883	7,859	8,011	17,530	24,487
New York	3,825	3,899	33,120	33,759	4,012	5,604
Pennsylvania	7,856	8,007	35,644	36,332	34,528	48,231
Lower Atlantic States						
Florida	2,720	2,772	61,078	62,257	28,374	39,636
Georgia	720	734	59,510	60,658	11,101	15,506
North Carolina	541	552	45,762	46,645	13,695	19,131
South Carolina	1,093	1,114	20,083	20,471	5,020	7,012
Virginia	2,074	2,114	28,704	29,258	14,844	20,735
West Virginia	4,774	4,866	2,451	2,498	7,845	10,958
Total	**39,025**	**39,778**	**331,372**	**337,418**	**205,900**	**287,619**
PAD District 2						
Illinois	15,589	16,733	150,371	161,404	45,886	64,098
Indiana	4,455	4,782	75,440	80,975	9,639	13,464
Iowa	1,531	1,643	130,830	140,429	2,408	3,364
Kansas	10,451	11,218	96,539	103,623	4,461	6,232
Kentucky	12,574	13,497	36,136	38,787	6,539	9,134
Michigan	2,987	3,207	63,161	67,795	29,302	40,932
Minnesota	455	489	99,637	108,947	879	1,226
Missouri	2,213	2,375	77,579	83,271	5,021	7,014
Nebraska	148	158	126,286	135,552	2,317	3,236
North Dakota	3,072	3,298	77,266	82,935	2,745	3,834
Ohio	6,376	6,844	50,352	54,046	8,128	11,354
Oklahoma	69,368	74,456	45,783	49,143	551	770
South Dakota	14	15	52,459	56,308	470	656
Tennessee	2,011	2,159	37,450	40,198	65,543	91,550
Wisconsin	473	507	94,951	101,917	3,566	4,980
Total	**131,719**	**141,383**	**1,214,241**	**1,303,330**	**187,465**	**261,843**
PAD District 3						
Alabama	4,303	4,200	43,443	42,405	5,216	7,286
Arkansas	5,125	5,003	153,823	150,144	9,973	13,931
Louisiana	186,080	181,630	46,425	45,315	7,841	10,953
Mississippi	21,391	20,879	62,415	60,922	5,394	7,536
New Mexico	13,292	12,974	9,524	9,296	21	29
Texas	382,490	373,343	338,800	330,698	8,355	11,672
Total	**612,681**	**598,029**	**654,430**	**638,780**	**36,801**	**51,407**
PAD District 4						
Colorado	8,918	9,053	76,015	77,164	3,017	4,215
Idaho	135	137	58,443	59,327	34	48
Montana	13,075	13,272	54,416	55,239	281	392
Utah	5,588	5,672	8,172	8,296	5,048	7,052
Wyoming	26,133	26,528	17,755	11,933	1,431	1,999
Total	**53,849**	**54,664**	**209,802**	**211,959**	**9,811**	**13,706**
PAD District 5						
Alaska	3,898	4,378	865	971	13,683	19,114
Arizona	437	491	24,859	27,925	1,258	1,757
California	58,118	65,285	299,600	336,548	9,021	12,601
Hawaii	271	305	9,595	10,779	26,859	37,519
Nevada	547	614	8,976	10,083	1,309	1,828
Oregon	924	1,039	38,988	43,796	217	303
Washington	1,955	2,197	46,719	52,481	935	1,306
Total	**66,150**	**74,308**	**429,603**	**482,583**	**53,282**	**74,428**
U.S. Total	**903,424**	**908,162**	**2,836,446**	**2,974,418**	**492,248**	**689,012**

Distillate Sales in 1984 . . .

(Add 000 gal.)

Destination	Railroad 1983	Railroad 1984	Vessel Bunkering 1983	Vessel Bunkering 1984	On-Highway 1983	On-Highway 1984
PAD District 1						
New England States						
Connecticut	673	727	1,489	1,518	127,457	183,583
Maine	5,221	5,637	585	596	78,823	116,662
Massachusetts	42,271	45,640	16,137	16,448	223,034	252,545
New Hampshire	83	90	20	20	33,503	40,593
Rhode Island	2,199	2,375	3,656	3,726	29,534	32,809
Vermont	1,537	1,660	5	5	28,296	36,274
Central Atlantic States						
Delaware	4,863	5,251	479	488	43,006	46,602
District of Columbia	5,580	6,024	9	10	20,548	21,393
Maryland	30,299	32,715	16,576	16,896	218,826	208,168
New Jersey	22,145	23,911	51,655	52,652	408,698	436,162
New York	8,578	9,262	11,098	11,312	397,602	439,452
Pennsylvania	59,580	64,330	13,855	14,123	684,096	734,690
Lower Atlantic States						
Florida	94,164	101,670	98,694	100,598	630,205	664,162
Georgia	94,169	101,676	16,304	16,618	568,654	633,818
North Carolina	59,518	64,262	16,080	16,390	457,351	501,663
South Carolina	24,243	26,176	6,991	7,125	259,424	291,490
Virginia	139,954	151,111	25,336	25,825	398,597	408,060
West Virginia	30,450	32,877	129,120	131,611	113,756	123,877
Total	**625,527**	**675,394**	**408,089**	**415,961**	**4,721,410**	**5,172,003**
PAD District 2						
Illinois	192,389	207,727	71,542	76,791	574,250	574,188
Indiana	138,709	149,767	4,801	5,153	595,052	692,209
Iowa	46,054	49,725	2,045	2,196	285,602	313,635
Kansas	182,048	174,986	—	—	232,404	252,239
Kentucky	104,507	112,836	162,399	174,314	310,950	335,968
Michigan	40,053	43,247	1,109	1,191	401,679	425,802
Minnesota	41,970	45,316	6,837	7,339	287,189	284,668
Missouri	73,342	79,180	12,852	13,794	388,610	438,179
Nebraska	100,586	108,605	—	—	187,336	181,983
North Dakota	[illegible]2,767	46,177	—	—	84,330	90,792
Ohio	[illegible]617	170,614	4,784	5,135	747,779	810,535
Oklahoma	[illegible],528	53,476	—	—	371,763	401,738
South Dakota	4,738	5,116	—	—	86,227	95,895
Tennessee	142,041	153,364	25,524	27,397	458,247	503,273
Wisconsin	19,610	21,173	7,562	8,117	321,756	342,908
Total	**1,316,260**	**1,421,299**	**299,455**	**321,427**	**5,333,174**	**5,744,012**
PAD District 3						
Alabama	71,211	76,888	32,122	31,354	314,265	345,705
Arkansas	24,575	26,535	1,967	1,920	249,909	285,945
Louisiana	76,291	82,373	404,985	395,300	335,755	362,139
Mississippi	21,084	22,765	54,584	53,278	231,107	268,572
New Mexico	6,366	6,873	—	—	148,780	168,017
Texas	382,041	412,498	155,939	152,210	1,457,074	1,514,092
Total	**581,568**	**627,932**	**649,597**	**634,062**	**2,736,890**	**2,944,470**
PAD District 4						
Colorado	66,846	71,959	—	—	193,601	202,150
Idaho	18,748	20,242	—	—	70,359	93,509
Montana	70,089	75,676	—	—	102,287	113,853
Utah	33,569	36,267	—	—	114,504	130,617
Wyoming	40,239	43,447	—	—	108,104	104,249
Total	**229,310**	**247,591**	**—**	**—**	**588,855**	**644,378**
PAD District 5						
Alaska	3,824	4,128	44,380	49,853	94,673	98,646
Arizona	63,060	68,067	—	—	201,348	228,929
California	183,015	197,605	165,133	185,498	1,261,746	1,399,258
Hawaii	365	394	20,532	23,064	16,440	17,548
Nevada	47,953	51,776	—	—	82,034	77,184
Oregon	109,871	118,630	16,025	18,001	257,732	195,543
Washington	40,824	44,078	39,327	44,177	251,921	275,452
Total	**448,911**	**484,678**	**285,397**	**320,593**	**2,165,894**	**2,292,560**
U.S. Total	**3,201,677**	**3,456,915**	**1,642,538**	**1,692,046**	**15,546,223**	**16,797,423**

. . . By Categories and Uses (Continued)

(Add 000 gal.)

Destination	Military		Off-Highway		All Other		Total	
	1983	1984	1983	1984	1983	1984	1983	1984
PAD District 1								
New England States								
Connecticut	181	185	5,339	5,442	9,292	9,471	711,176	778,847
Maine	261	266	5,623	5,732	2,133	2,174	307,664	350,238
Massachusetts	1,627	1,658	13,592	13,854	11,181	11,397	1,317,301	1,373,101
New Hampshire	70	72	4,685	4,775	754	768	189,858	200,006
Rhode Island	599	610	3,972	4,049	1,816	1,851	198,907	205,991
Vermont	36	36	3,120	3,180	281	287	146,194	155,782
Central Atlantic States								
Delaware	632	644	3,261	3,324	225	229	141,794	149,356
District of Columbia	93	94	427	435	48	49	116,305	128,288
Maryland	2,951	3,008	23,182	23,629	10,106	10,301	771,985	785,563
New Jersey	1,930	1,967	20,322	20,714	57,601	58,713	1,634,509	1,693,580
New York	2,165	2,207	43,671	44,514	20,372	20,765	2,374,070	2,456,086
Pennsylvania	3,943	4,019	65,797	67,066	28,205	28,749	2,174,051	2,270,029
Lower Atlantic States								
Florida	11,009	11,221	49,241	50,191	17,513	17,851	1,166,121	1,226,821
Georgia	2,441	2,489	29,272	29,836	4,214	4,296	920,513	1,002,347
North Carolina	3,741	3,813	20,830	21,231	5,480	5,586	1,034,286	1,098,497
South Carolina	2,380	2,425	13,725	13,990	2,658	2,708	444,856	483,860
Virginia	5,319	5,422	35,490	36,175	7,196	7,335	1,053,655	1,089,818
West Virginia	1,986	2,003	27,694	28,228	1,334	1,359	417,043	437,817
Total	**41,342**	**42,140**	**369,243**	**376,367**	**180,408**	**183,880**	**15,119,296**	**15,888,038**
PAD District 2								
Illinois	46,252	49,646	53,359	57,274	5,749	6,171	1,481,111	1,574,389
Indiana	1,664	1,763	19,685	21,140	4,727	5,074	1,164,235	1,307,192
Iowa	49	53	12,909	13,427	[illegible]	4,282	591,614	543,171
Kansas	509	547	12,707	13,639	8,080	8,887	584,683	632,837
Kentucky	2,009	2,156	56,193	60,273	3,346	3,592	856,568	926,544
Michigan	3,936	4,224	24,383	26,172	5,333	5,724	946,031	1,019,837
Minnesota	639	686	16,412	17,616	2,710	2,908	731,336	781,863
Missouri	1,975	2,120	21,055	22,600	813	873	704,021	778,821
Nebraska	674	723	12,614	13,540	4,963	5,328	486,339	504,312
North Dakota	2,050	2,201	5,921	5,356	102	109	288,433	311,028
Ohio	536	575	33,992	36,486	3,309	3,551	1,393,545	1,507,314
Oklahoma	535	574	47,912	51,427	13,668	14,671	696,849	753,100
South Dakota	336	361	3,796	4,074	387	416	187,501	204,782
Tennessee	4,522	4,854	75,920	27,822	21,446	23,019	903,777	1,003,598
Wisconsin	1,417	1,521	17,080	18,333	4,417	4,741	856,746	918,428
Total	**67,104**	**72,027**	**333,507**	**396,178**	**83,246**	**88,347**	**11,886,586**	**12,847,254**
PAD District 3								
Alabama	3,392	3,311	60,331	58,869	9,801	9,566	649,195	682,201
Arkansas	1,178	1,150	28,475	27,794	4,498	4,391	562,354	597,662
Louisiana	703	686	82,064	80,101	15,374	15,007	1,306,419	1,320,796
Mississippi	435	424	59,859	58,427	6,250	6,101	558,853	592,935
New Mexico	634	619	23,169	22,615	5,860	5,720	281,610	298,339
Texas	272,002	265,497	239,122	233,404	150,757	147,152	4,025,672	4,064,372
Total	**278,344**	**271,688**	**483,020**	**481,230**	**192,541**	**187,936**	**7,384,104**	**7,556,304**
PAD District 4								
Colorado	2,297	2,332	36,770	37,327	4,762	4,834	458,417	476,439
Idaho	1,399	1,420	10,039	10,191	4,962	5,058	221,055	247,709
Montana	917	931	13,623	13,829	33,312	33,816	373,076	393,373
Utah	1,008	1,023	17,367	17,680	4,821	4,894	271,278	293,857
Wyoming	470	477	45,574	46,253	9,430	9,572	303,213	307,485
Total	**6,091**	**6,183**	**123,374**	**125,280**	**57,287**	**58,174**	**1,627,039**	**1,718,863**
PAD District 5								
Alaska	6,957	7,815	7,822	8,786	4,360	4,898	296,790	329,265
Arizona	744	835	25,498	28,642	235	264	369,268	415,152
California	238,187	267,562	135,073	151,731	96,194	108,058	2,873,345	3,204,094
Hawaii	15,326	17,219	2,172	2,440	19	21	97,713	116,176
Nevada	3,039	3,414	33,920	38,103	1,017	1,142	222,778	233,553
Oregon	1,643	1,846	22,955	25,786	8,953	10,057	675,934	660,568
Washington	4,966	5,580	40,139	45,089	24,684	27,728	688,048	763,840
Total	**270,862**	**304,271**	**267,578**	**300,577**	**135,462**	**152,168**	**5,223,876**	**5,722,648**
U.S. Total	**683,379**	**696,309**	**1,610,722**	**1,673,801**	**648,868**	**671,814**	**41,240,802**	**43,731,114**

Source: Energy Information Administration, Petroleum Marketing Monthly, July 1985.

Kerosine Sales in 1984 . . .

(Add 000 gal.)

Destination	Residential 1983	Residential 1984	Commercial 1983	Commercial 1984	Industrial 1983	Industrial 1984
PAD District 1						
New England States						
Connecticut	8,176	5,391	2,862	1,987	966	637
Maine	11,192	7,380	2,844	1,875	154	102
Massachusetts	6,897	4,848	1,507	994	899	593
New Hampshire	9,099	6,000	230	152	71	47
Rhode Island	2,410	1,589	120	79	2	1
Vermont	9,029	5,954	373	246	96	63
Central Atlantic States						
Delaware	9,997	6,583	381	251	448	295
District of Columbia	4	2	244	161	76	50
Maryland	23,034	15,189	1,721	1,136	713	470
New Jersey	13,032	6,593	2,142	1,412	1,259	830
New York	62,856	41,450	54,148	36,707	2,567	1,693
Pennsylvania	52,908	34,880	15,344	10,118	3,471	2,290
Lower Atlantic States						
Florida	12,995	8,569	27,156	17,907	610	402
Georgia	4,320	2,848	1,197	789	469	309
North Carolina	50,978	33,617	3,954	2,608	6,389	4,213
South Carolina	21,256	14,017	991	653	3,075	2,028
Virginia	49,853	32,743	2,424	1,598	1,387	915
West Virginia	10,774	7,105	2,576	1,898	2,184	1,440
Total	**358,810**	**238,479**	**120,213**	**79,272**	**24,836**	**16,377**
PAD District 2						
Illinois	7,677	7,987	782	815	12,386	12,912
Indiana	17,057	17,768	15,686	16,342	6,752	7,034
Iowa	2,270	2,366	175	182	983	1,034
Kansas	1,238	1,290	418	435	34	35
Kentucky	38,268	39,862	8,024	8,359	10,920	11,376
Michigan	18,470	19,240	709	738	1,663	1,733
Minnesota	3,828	3,988	98	102	182	189
Missouri	2,897	3,018	1,450	1,511	1,101	1,146
Nebraska	1,944	2,026	290	280	10	10
North Dakota	777	809	14	15	53	55
Ohio	36,836	38,373	14,504	15,109	20,006	20,841
Oklahoma	536	558	542	564	2,294	2,390
South Dakota	1,136	1,183	22	23	—	—
Tennessee	30,607	31,883	8,001	8,335	4,856	5,058
Wisconsin	3,405	3,547	348	363	327	340
Total	**166,942**	**173,906**	**51,044**	**53,173**	**61,385**	**64,184**
PAD District 3						
Alabama	25,257	25,778	3,980	4,042	10,353	10,897
Arkansas	37,078	37,842	72,217	73,705	7,532	7,887
Louisiana	3,851	3,930	3,300	3,368	26,798	27,350
Mississippi	4,702	4,799	4,270	4,358	3,402	3,472
New Mexico	12,036	12,285	49,802	50,828	14,973	15,281
Texas	4,706	4,802	494,747	504,945	39,623	40,430
Total	**87,630**	**89,436**	**628,316**	**641,246**	**102,710**	**104,697**
PAD District 4						
Colorado	9,455	6,847	1,128	817	36	26
Idaho	130	94	203	147	80	58
Montana	606	439	8	6	117	85
Utah	1,665	1,208	351	254	391	283
Wyoming	135	98	534	386	325	235
Total	**11,990**	**8,683**	**2,223**	**1,610**	**949**	**687**
PAD District 5						
Alaska	104	112	218	236	74	80
Arizona	98	106	96	102	83	68
California	2,277	2,451	4,772	5,139	1,413	1,522
Hawaii	—	—	48	52	—	—
Nevada	1,797	1,936	133	143	82	88
Oregon	1,156	1,247	1,860	2,024	10	11
Washington	1,894	2,040	11,556	16,750	49,807	53,633
Total	**7,326**	**7,892**	**22,703**	**24,447**	**51,469**	**55,394**
U.S. Total	**632,698**	**518,396**	**824,479**	**799,748**	**241,509**	**241,428**

. . . By Categories and Uses

(Add 000 gal.)

Destination	Farm 1983	Farm 1984	All Other 1983	All Other 1984	Total 1983	Total 1984
PAD District 1						
New England States						
Connecticut	32	21	394	280	12,425	8,196
Maine	192	127	470	310	14,851	9,793
Massachusetts	70	46	671	442	10,044	8,624
New Hampshire	16	10	23	15	9,440	6,228
Rhode Island	0	0	6	4	2,540	1,675
Vermont	94	62	1,244	821	10,835	7,146
Central Atlantic States						
Delaware	6	4	513	338	11,345	7,461
District of Columbia	—	—	281	185	605	399
Maryland	203	134	1,977	1,304	27,647	18,232
New Jersey	23	19	58,865	38,817	75,325	49,672
New York	449	296	27,243	17,965	147,263	97,110
Pennsylvania	658	434	4,726	3,117	77,107	50,847
Lower Atlantic States						
Florida	161	100	958	631	41,868	27,809
Georgia	38	25	443	292	6,466	4,264
North Carolina	3,254	2,145	491	324	65,066	42,907
South Carolina	198	130	1,162	766	26,681	17,594
Virginia	1,357	895	1,669	1,100	56,489	37,251
West Virginia	977	644	898	592	17,408	11,480
Total	**7,732**	**5,092**	**102,030**	**67,282**	**613,410**	**404,582**
PAD District 2						
Illinois	1,506	1,571	4,433	4,618	26,795	27,913
Indiana	1,362	1,419	1,598	1,665	42,457	44,227
Iowa	293	306	3	3	3,734	3,890
Kansas	377	392	5,570	5,802	7,637	7,955
Kentucky	1,890	1,969	5,963	6,212	65,064	67,778
Michigan	1,479	1,541	1,056	1,100	23,376	24,351
Minnesota	1,359	1,416	265	276	5,729	5,968
Missouri	82	85	167	174	5,696	5,934
Nebraska	899	926	69	72	3,181	3,313
North Dakota	45	47	4	4	893	930
Ohio	3,880	4,042	4,372	4,556	79,600	82,920
Oklahoma	70	73	1,612	1,679	5,054	5,265
South Dakota	245	256	63	66	1,467	1,528
Tennessee	422	440	1,675	1,745	45,560	47,461
Wisconsin	578	602	316	329	4,974	5,181
Total	**14,479**	**15,083**	**27,106**	**28,299**	**321,216**	**334,614**
PAD District 3						
Alabama	1,529	1,561	1,205	1,230	42,335	43,208
Arkansas	2,990	2,643	1,247	1,272	120,662	123,149
Louisiana	625	637	15,191	15,504	49,764	50,788
Mississippi	308	345	2,355	2,404	15,067	15,378
New Mexico	780	776	3,787	3,865	81,357	83,034
Texas	3,250	3,317	57,285	58,466	599,610	611,969
Total	**9,482**	**9,278**	**81,070**	**82,741**	**906,798**	**927,528**
PAD District 4						
Colorado	624	452	66	48	11,309	8,190
Idaho	51	37	11	8	475	344
Montana	25	18	3	2	759	549
Utah	23	17	1	1	2,431	1,761
Wyoming	1,540	1,115	8	5	2,540	1,840
Total	**2,263**	**1,639**	**89**	**64**	**17,514**	**12,684**
PAD District 5						
Alaska	1	1	299	321	896	749
Arizona	12	13	7	8	276	297
California	870	937	2,699	2,906	12,031	12,958
Hawaii	—	—	8	8	56	60
Nevada	50	53	369	397	2,410	2,596
Oregon	45	48	2	2	3,095	3,332
Washington	20	21	7	8	67,294	72,453
Total	**997**	**1,074**	**3,390**	**3,651**	**86,048**	**92,442**
U.S. Total	**34,553**	**32,167**	**213,745**	**182,037**	**1,946,784**	**1,771,870**

Source: Energy Information Administration, Petroleum Marketing Monthly, July 1985.

Residual Fuel Oil Sales in 1984 . . .

(Add 000 gal.)

	Commercial		Industrial		Oil Company		Electric Utility	
Destination	1983	1984	1983	1984	1983	1984	1983	1984
PAD District 1								
New England States								
Connecticut	36,864	39,417	77,482	69,898	—	—	1,331,585	1,214,751
Maine	33,829	30,517	191,499	172,755	235	212	14,806	13,507
Massachusetts	111,223	100,337	239,117	215,712	—	—	875,253	816,919
New Hampshire	14,113	12,732	12,849	11,591	26,942	24,305	16,574	15,120
Rhode Island	13,678	12,339	21,506	19,401	—	—	9,323	8,505
Vermont	2,171	1,958	4,951	4,466	7,295	6,644	—	—
Central Atlantic States								
Delaware	8,428	7,693	29,578	26,683	44	40	81,818	74,640
District of Columbia	22,391	20,200	89	80	—	—	—	—
Maryland	25,558	23,054	131,795	118,895	1,437	1,296	257,054	234,500
New Jersey	121,354	109,476	114,019	102,859	58,444	52,724	1,338,190	1,220,777
New York	567,223	511,702	184,187	166,108	839	757	2,231,521	2,035,727
Pennsylvania	69,705	62,882	126,837	111,422	49,897	45,013	590,058	538,286
Lower Atlantic States								
Florida	45,615	41,150	198,172	178,775	617	557	1,079,595	984,871
Georgia	23,637	21,323	132,056	119,131	383	345	2,230	2,034
North Carolina	7,896	6,943	251,893	227,237	2,777	2,505	—	—
South Carolina	3,430	3,094	132,708	119,718	29	26	—	—
Virginia	22,066	19,906	116,714	105,290	1,166	1,052	163,889	149,491
West Virginia	23	21	44,762	40,391	5,211	4,701	—	—
Total	**1,199,092**	**1,044,652**	**2,010,216**	**1,813,460**	**166,395**	**149,175**	**7,782,875**	**7,109,129**
PAD District 2								
Illinois	47,758	40,921	50,551	43,315	251,674	215,646	4,756	4,339
Indiana	48,976	41,965	81,557	69,882	1,010	866	—	—
Iowa	177	152	8,381	7,181	—	—	2	2
Kansas	230	197	71,726	61,458	1,266	1,085	—	—
Kentucky	2,033	1,742	27,514	23,575	22,988	19,697	—	—
Michigan	2,872	2,460	127,853	109,551	24,887	21,324	—	—
Minnesota	6,433	5,512	35,370	30,307	23,900	20,479	2	2
Missouri	10,715	9,181	12,536	10,742	—	—	—	—
Nebraska	—	—	4,736	4,058	3	2	—	—
North Dakota	6,334	5,428	36,723	31,466	25,079	21,489	354	323
Ohio	1,311	1,123	130,712	112,000	45,940	39,363	666	609
Oklahoma	—	—	22,606	19,370	860	737	—	—
South Dakota	2,905	2,489	2,926	2,507	—	—	—	—
Tennessee	5,688	4,873	41,751	35,774	—	—	—	—
Wisconsin	380	326	15,412	13,206	11,681	10,008	598	545
Total	**136,812**	**116,370**	**670,356**	**574,382**	**409,288**	**350,667**	**6,381**	**5,821**
PAD District 3								
Alabama	1,036	1,401	63,396	85,535	572	771	—	—
Arkansas	5,166	8,970	27,374	36,934	—	—	—	—
Louisiana	56,777	76,605	592,423	799,309	66,772	119,773	173,617	158,383
Mississippi	—	—	8,190	11,459	10,886	14,688	—	—
New Mexico	28,188	36,031	64,813	87,447	17	24	230	210
Texas	46,419	62,630	242,968	327,618	123,981	187,278	45,421	41,436
Total	**137,586**	**185,637**	[illegible]	**1,248,582**	**234,329**	**322,534**	**219,268**	**200,029**
PAD District 4								
Colorado	265	252	11,770	11,199	42	40	1,580	1,442
Idaho	882	839	3,834	3,648	—	—	—	—
Montana	7,829	7,449	7,205	6,855	41,144	39,147	—	—
Utah	10,101	9,610	36,727	34,944	12,083	11,496	—	—
Wyoming	1,501	1,428	2,700	2,569	5,154	4,904	2,286	2,086
Total	**20,578**	**19,579**	**62,236**	**59,215**	**58,423**	**55,586**	**3,867**	**3,527**
PAD District 5								
Alaska	10	9	—	—	—	—	—	—
Arizona	32	28	232	206	—	—	95,598	23,352
California	84,476	21,677	44,932	38,757	324,542	287,422	2,094	1,910
Hawaii	424	378	3,534	3,130	8,493	7,521	527,803	481,493
Nevada	489	433	2,548	2,258	491	435	111	102
Oregon	5,336	4,729	37,975	33,631	264	234	—	—
Washington	28,387	25,140	100,737	88,215	30,230	17,943	—	—
Total	**89,159**	**52,391**	**189,918**	[illegible]	**364,020**	**313,555**	**625,606**	**506,857**
U.S. Total	**1,511,138**	**1,418,630**	**3,932,182**	**3,963,753**	**1,201,374**	**1,162,547**	**8,577,996**	**7,825,383**

. . . By Categories and Uses

(Add 000 gal.)

	Railroad		Vessel Bunkering		Military		All Other		Total	
Destination	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984
PAD District 1										
New England States										
Connecticut	—	—	797	689	19,661	19,226	3,029	2,732	1,498,406	1,366,719
Maine	—	—	797	698	—	—	—	—	241,186	217,688
Massachusetts	—	—	6,242	5,462	892	876	4,807	4,337	1,038,335	943,442
New Hampshire	—	—	—	—	—	—	70	64	70,549	63,811
Rhode Island	—	—	—	—	—	—	—	—	44,507	40,249
Vermont	—	—	—	—	—	—	17	16	14,503	13,084
Central Atlantic States										
Delaware	—	—	17,903	15,694	5,866	5,736	8,650	7,803	152,320	138,196
District of Columbia	—	—	—	—	16,081	15,725	—	—	38,561	36,004
Maryland	—	—	84,528	74,050	280	274	1,482	1,337	502,231	453,406
New Jersey	—	—	554,221	484,947	9,913	9,693	7,353	6,633	2,203,493	1,987,109
New York	—	—	83,828	73,350	11,924	11,660	4,797	4,328	3,084,319	2,803,865
Pennsylvania	—	—	70,070	81,312	4,595	4,494	510	460	911,672	826,866
Lower Atlantic States										
Florida	—	—	184,799	161,700	89	87	460	415	1,509,348	1,367,559
Georgia	—	—	52,236	45,707	—	—	—	—	210,543	188,541
North Carolina	—	—	1,889	1,653	—	—	233	210	264,486	238,546
South Carolina	—	—	41,748	36,530	890	870	135	122	178,940	160,360
Virginia	—	—	89,798	78,574	24,684	24,137	4,566	4,119	422,862	382,569
West Virginia	—	—	—	—	—	—	—	—	49,997	45,106
Total	—	—	[illegible]	[illegible]	94,874	[illegible]	36,110	32,575	12,436,242	[illegible]
PAD District 2										
Illinois	2	2	2,885	4,743	700	684	6,478	5,551	364,805	315,200
Indiana	—	—	3,441	5,656	725	709	1,306	1,119	137,015	120,197
Iowa	16	14	115	159	—	—	40	35	8,732	7,573
Kansas	—	—	—	—	3,720	3,638	—	—	76,942	66,378
Kentucky	8	7	—	—	527	515	499	426	53,570	45,965
Michigan	—	—	56	93	4,521	4,421	392	336	160,581	138,185
Minnesota	—	—	2,249	3,697	—	—	2,947	2,526	70,902	62,522
Missouri	—	—	6	11	1,020	996	77	66	24,364	20,906
Nebraska	—	—	—	—	—	—	11	10	4,750	4,070
North Dakota	20	17	—	—	—	—	571	469	69,081	59,211
Ohio	—	—	880	1,447	—	—	3,036	2,602	182,547	157,145
Oklahoma	—	—	—	—	—	—	—	—	23,466	20,107
South Dakota	—	—	—	—	—	—	337	289	6,166	5,285
Tennessee	—	—	—	—	—	—	58	50	47,496	40,697
Wisconsin	999	856	4,421	7,288	—	—	3,251	2,812	36,772	35,021
Total	1,045	896	14,063	23,103	11,213	10,964	19,036	16,311	1,267,182	1,098,552
PAD District 3										
Alabama	61	83	66,618	82,849	24,387	23,847	24	32	156,096	174,319
Arkansas	—	—	—	—	—	—	—	—	32,540	43,904
Louisiana	7	9	780,527	712,840	9,145	8,943	154,599	208,586	1,655,867	2,004,251
Mississippi	—	—	80,619	73,807	—	—	—	—	99,999	99,754
New Mexico	11	15	—	—	—	—	56,936	76,819	150,135	302,546
Texas[a]	—	—	1,134,155	1,035,511	38,198	37,353	289,297	390,326	1,920,440	2,062,351
Total	78	107	2,063,916	[illegible]	71,731	70,143	[illegible]	675,766	4,217,136	[illegible]
PAD District 4										
Colorado	716	661	—	—	—	—	—	—	14,374	13,614
Idaho	—	—		—	—	—	9	9	4,725	4,496
Montana	118	112	—	—	—	—	3,248	3,090	59,544	56,653
Utah	—	—	—	—	13,198	12,906	810	771	72,919	69,727
Wyoming	—	—	—	—	—	—	5,217	4,964	16,859	15,961
Total	834	793	—	—	13,198	12,906	9,284	8,833	168,420	160,440
PAD District 5										
Alaska	—	—	2,511	2,799	—	—	—	—	2,521	2,808
Arizona	—	—	—	—	—	—	—	—	25,862	23,586
California	—	—	2,179,103	2,429,224	21,411	20,937	29,907	26,487	2,626,425	2,827,413
Hawaii	—	—	51,694	57,628	14,889	14,559	8,439	7,474	615,276	572,181
Nevada	—	—	—	—	146	142	10	9	3,795	3,377
Oregon	—	—	149,066	166,176	—	—	844	747	193,466	205,517
Washington	—	—	74,838	83,429	—	—	798	707	225,021	216,434
Total	—	—	2,457,312	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3,851,319
U.S. Total	1,988	1,796	5,724,183	5,667,130	227,262	222,230	805,284	768,908	21,781,368	21,050,358

Source: Energy Information Agency, Petroleum Marketing Monthly, July 1985.

U.S. Sales of Distillate Fuel Oil by Uses

(Add 000 bbl.)

Year	Residential	Commercial	Industrial	Farm	Oil Company	Electric Utilities	Diesel	Other	Total
1984 (a)	164,529	116,729	56,113	70,819	21,623	16,405	439,786	139,173	1,041,217
1983 (a)	159,481	112,392	54,030	67,582	21,510	11,744	408,594	131,142	981,926
1982	180,760	75,669	71,340	68,453	29,482	12,134	375,124	164,253	974,864
1981	197,400	78,663	80,218	69,965	29,185	18,192	378,853	180,302	1,032,476
1980	227,261	92,136	86,088	73,615	24,265	31,812	377,136	178,355	1,086,709
1979	270,306	99,723	99,583	84,926	22,043	46,579	392,614	196,600	1,214,374

(a) In 1984, (as it did in 1979), Energy Information Administration revised some of its sampling procedures and adjusted some of the categories to reflect market volumes. Thus the 1984 and 1983 data are estimates and may not be truly comparable to 1982 and the preceding years. For early data, see the 1985 *NPN Factbook*.

U.S. Sales of Residual Fuel Oil by Uses

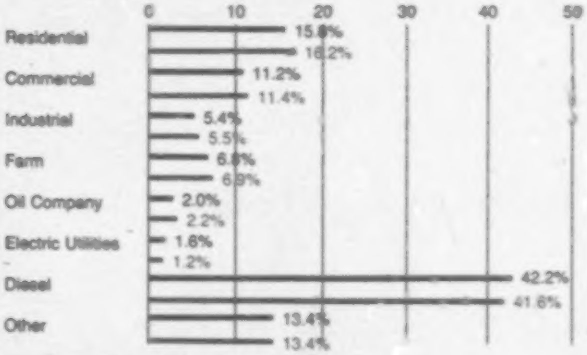
(Add 000 bbl.)

Year	Vessel Bunkering	Electric Utilities	Railroads	Oil Companies	Industrial	Commercial	Military	Other	Total
1984 (a)	135,406	186,318	40	27,680	94,375	33,777	5,291	18,307	501,199
1983 (a)	136,[illegible]	204,236	47	28,604	93,624	35,979	5,411	14,412	518,604
1982	152,[illegible]	227,419	170	45,319	122,619	65,781	7,829	4,764	626,510
1981	186,[illegible]	325,496	178	51,470	117,024	67,035	7,008	4,795	762,030
1980	213,13[illegible]	390,105	665	58,518	163,564	98,034	8,066	4,382	937,466
1979	190,543	486,636	245	51,062	198,759	82,729	7,736	16,900	1,034,610

(a) See Footnote (a) above.

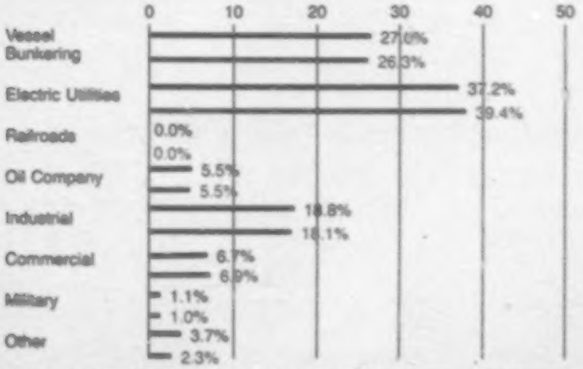
Sales of Distillates by Use As Percent of Total

1984 = 1,041,217 bbl.



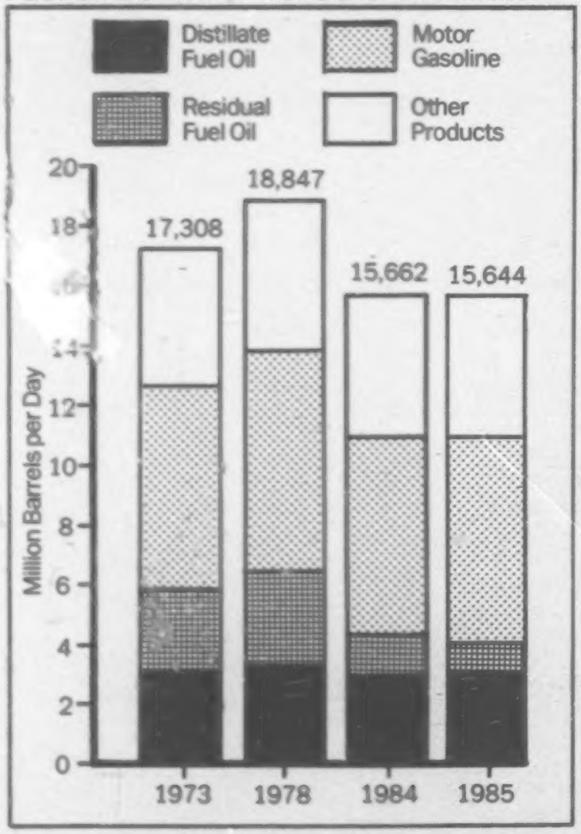
Sales of Residuals by Use As Percent of Total

1984 = 501,199,000 bbl.



Source: Sales of Fuel Oil and Kerosine in 1984. Energy Information Administration, Petroleum Marketing Monthly, July 1985.

Fuel Oil Demand vs. Other Products



N.B.—1978 was peak year of consumption for all products, including distillates and gasoline. Peaks for residual and other products at slightly higher levels came in 1979.

Source: Energy Information Administration data from Monthly Energy Review; Graph by *NPN*.

How Fuel Oil Marketers Evaluate Issues and Problems

Government Interference

	Critical	Very Important	Important	Not Important
New England	34.3%	28.1%	21.9%	15.7%
Mid-Atlantic	33.2	31.3	19.4	16.1
South	31.3	31.3	25.0	12.4
Midwest	48.0	30.0	12.0	10.0
West	57.9	26.3	—	15.8
All Sectors	**40.9%**	**29.4%**	**15.7%**	**14.0%**

Strong Internal Controls

	Critical	Very Important	Important	Not Important
New England	12.5%	18.8%	25.0%	43.7%
Mid-Atlantic	4.5	19.4	34.3	41.8
South	6.3	31.3	12.5	49.9
Midwest	6.0	22.0	24.0	46.0
West	5.3	21.1	42.1	31.5
All Sectors	**6.9%**	**22.5%**	**27.6%**	**43.0%**

Competition from Utilities

	Critical	Very Important	Important	Not Important
New England	21.9%	21.9%	21.9%	34.3%
Mid-Atlantic	29.9	28.3	14.9	26.9
South	37.5	12.5	25.0	25.0
Midwest	32.0	30.0	22.0	16.0
West	47.4	26.3	5.3	21.0
All Sectors	**33.7%**	**23.8%**	**17.8%**	**24.6%**

Ability to Increase Sales

	Critical	Very Important	Important	Not Important
New England	28.1%	40.6%	21.9%	9.4%
Mid-Atlantic	23.9	43.3	17.9	14.9
South	25.0	50.0	6.3	18.7
Midwest	34.0	36.0	20.0	10.0
West	47.4	26.3	10.5	15.8
All Sectors	**31.7%**	**39.2%**	**15.3%**	**13.8%**

Competition from Majors

	Critical	Very Important	Important	Not Important
New England	18.8%	21.9%	28.1%	31.2%
Mid-Atlantic	13.4	20.9	16.4	49.3
South	12.5	31.3	18.8	37.4
Midwest	14.0	34.0	28.0	24.0
West	36.8	15.8	10.5	36.9
All Sectors	**19.1%**	**24.8%**	**20.4%**	**35.8%**

Hire/Retain Good People

	Critical	Very Important	Important	Not Important
New England	50.0%	34.3%	9.4%	6.3%
Mid-Atlantic	22.4	37.3	17.4	22.4
South	12.5	37.5	12.5	37.5
Midwest	16.0	32.0	24.0	28.0
West	45.5	47.4	5.3	1.8
All Sectors	**29.3%**	**37.7%**	**13.8%**	**19.2%**

Declining Supplier Population

	Critical	Very Important	Important	Not Important
New England	3.1%	28.1%	37.5%	31.3%
Mid-Atlantic	5.9	14.9	33.2	46.0
South	12.5	6.3	12.5	68.7
Midwest	6.0	16.0	36.0	42.0
West	10.5	15.8	15.8	57.9
All Sectors	**7.6%**	**16.2%**	**27.0%**	**49.2%**

Reduction in Company Overhead

	Critical	Very Important	Important	Not Important
New England	15.6%	37.5%	31.3%	15.6%
Mid-Atlantic	17.9	41.8	19.4	20.9
South	18.8	6.3	31.3	43.6
Midwest	28.0	38.0	26.0	8.0
West	31.6	36.8	21.1	10.5
All Sectors	**22.4%**	**32.1%**	**25.8%**	**19.7%**

Source: Fuel Oil News, A Hunter Energy Network Publication, December 1985.

Industry Profile—1985

Average Size of Business

	No. Residential Fuel Oil Accts.	No. C/I Customers	Vol. Distillate	Vol. Residual	Vol. Gasoline	No. Employees
New England	1,385	135	1,565,968 gal.	1,508,333 gal.	1,238,571 gal.	11.8
Mid-Atlantic	1,416	112	2,129,259	2,230,000	2,626,345	12.8
South	702	65	919,813	N.R.	3,092,000	7.6
Midwest	493	97	1,260,310	943,000	1,418,250	11.3
West	2,316	248	2,113,368	307,695	1,834,474	12.9
All Sections	1,262	131	1,601,744 gal.	1,247,307 gal.	2,041,928 gal.	11.3

N.R.—Not Reported

Petroleum Products Sold (% of Total Volume)

	No. 2	No. 1	No. 4	No. 5 & 6
New England	77.3%	7.7%	2.9%	1.0%
Mid-Atlantic	65.4	5.3	1.6	1.2
South	51.2	11.6	*	*
Midwest	39.3	8.1	*	*
West	56.8	7.0	0.5	0.6
All Sections	58.0%	7.9%	1.0%	0.8%

	No. 2 for Diesel	Gasoline	LPG/LNG	Other
New England	2.6%	8.9%	2.3%	*
Mid-Atlantic	9.8	13.8	0.2	1.1
South	7.1	28.5	1.4	*
Midwest	14.1	37.1	*	1.1
West	18.6	27.1	*	*
All Sections	10.4%	23.1%	0.8%	0.4%

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*Less than .1%

Percent of Dealers Selling, Installing and Servicing Equipment

	Residential				
	Oil Burners	Gas Burners	Domestic Hot Water	Boilers	Hydronic Systems
New England	97.6%	18.5%	96.3%	81.5%	70.4%
Mid-Atlantic	96.0	18.0	86.0	84.0	52.0
South	23.5	*	5.9	*	*
Midwest	32.7	17.3	23.1	25.0	17.3
West	68.4	10.5	15.8	26.3	26.3
All Sections	62.6%	12.9%	45.4%	43.4%	33.2%

	Commercial/Industrial				
	Oil Burners	Gas Burners	Domestic Hot Water	Boilers	Hydronic Systems
New England	59.3%	11.1%	55.6%	51.9%	33.3%
Mid-Atlantic	56.0	12.0	32.0	48.0	32.0
South	17.6	*	*	*	*
Midwest	23.1	11.5	17.3	9.6	9.6
West	36.8	15.8	15.8	21.1	15.8
All Sections	38.8%	10.1%	24.1%	25.7%	18.1%

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*Less than .1%

The Service Department—A Bird's Eye View

	Have Service Depts.	Average No. Calls per Year	Value of Parts/Inventory	Service Dept. Profitable	No. of Technicians	No. of Service Vans
New England	77.8%	1,536	$15,023	30.8%	3.0	3.2
Mid-Atlantic	70.4	986	25,623	48.0	3.5	3.9
South	23.5	238	2,633	75.0	1.8	1.0
Midwest	38.8	561	13,313	94.7	2.1	1.7
West	60.0	1,931	37,670	31.6	2.8	2.8
All Sections	54.1%	1,083	$18,852	56.0%	2.6	2.6

Source: Fuel Oil News, a Hunter Energy-Network Publication, December 1985.

Annual Sales by Type of Customer

(% of total customers served)

	Homes	Apts.	Educ.	Hospitals	Commercial	Industrial
New England	77.7%	6.1%	0.8%	0.5%	10.1%	5.0%
Mid-Atlantic	80.6	4.2	0.8	0.8	7.3	3.9
South	85.7	0.1	*	0.6	7.9	3.7
Midwest	74.2	2.7	1.8	0.2	9.3	6.4
West	84.1	3.7	1.2	2.1	8.6	2.4
All Sections	**80.5%**	**3.5%**	**0.9%**	**0.8%**	**8.6%**	**4.3%**

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*Less than .1%

Electronic Data Applications

(% using for listed items)

	New England	Mid-Atlantic	South	Midwest	West	All Sections
General ledger	42.1%	64.9%	100.0%	83.3%	81.8%	74.4%
Accounts payable	47.4	70.3	77.8	61.1	72.7	65.9
Accounts receivable/billing	100.0	94.6	100.0	77.8	100.0	94.5
Inventory reconciliation	42.1	24.3	44.4	61.1	54.5	45.3
Payroll	15.8	64.9	44.4	83.3	63.6	54.4
Fixed asset management	15.8	21.6	*	33.3	45.5	23.2
Excise tax reporting	26.2	27.0	44.4	44.4	54.5	39.3
Communications with stations	*	8.1	*	27.8	*	7.2
Tracking supplier costs	5.3	14.5	*	16.7	27.3	12.8
Pricing analysis	15.8	14.5	*	27.8	36.4	18.9
Oil price info. service/petro scan	*	2.7	*	11.9	27.3	8.2
Word processing	15.8	14.5	*	22.2	27.3	16.0
Scheduling of deliveries	63.2	40.5	44.4	22.2	81.8	50.4

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*Less than .1%

Trucks per Marketer

	Average No. Del. Trucks	Average No. Trailers	Average Size		Optimum Size Preferred
			Largest	Smallest	
New England	3.7	0.6	2,821	2,172	2,823
Mid-Atlantic	3.9	0.8	2,972	2,217	2,811
South	3.1	0.5	1,958	1,569	2,042
Midwest	2.9	0.4	2,315	1,786	2,214
West	5.1	0.9	2,353	1,641	2,582
All Sections	**3.7**	**0.6**	**2,484**	**1,677**	**2,494**

Truck Tanks by Type

	Use			Prefer	
	Steel	Alum.	Both	Steel	Alum.
New England	41.9%	9.7%	48.4%	12.9%	67.8%
Mid-Atlantic	41.2	16.2	42.6	20.6	55.9
South	86.7	*	13.3	53.3	33.3
Midwest	83.7	*	16.3	50.0	29.2
West	36.8	5.3	52.6	15.8	63.2
All Sections	**58.1%**	**6.2%**	**34.6%**	**30.5%**	**49.9%**

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*Less than .1%

Engines by Type

	Use			Prefer	
	Diesel	Gas	Both	Diesel	Gas
New England	41.2%	17.6%	41.2%	76.4%	8.8%
Mid-Atlantic	27.1	31.4	41.4	60.0	18.6
South	*	60.0	40.0	40.0	46.7
Midwest	10.2	63.3	26.6	46.9	46.9
West	15.8	36.8	47.4	47.4	31.6
All Sections	**18.9%**	**41.8%**	**39.7%**	**54.1%**	**30.5%**

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*Less than .1%

Source: Fuel Oil News, a Hunter Energy-Network Publication.

Average Drop (Gal.)

	275 Gal. Tanks
New England	175.7
Mid-Atlantic	172.4
South	175.3
Midwest	183.8
West	176.2
All Sections	**176.7**

	550 Gal. Tanks
New England	358.7
Mid-Atlantic	347.7
South	353.4
Midwest	400.5
West	367.3
All Sections	**365.5**

% Selling, Installing and Servicing Equipment

New England	75.0%
Mid-Atlantic	71.4
South	29.4
Midwest	32.7
West	63.2
All Sections	**54.3%**

By Types of Equipment

Residential

	Furnaces	Warm Air Systems
New England	96.3%	96.3%
Mid-Atlantic	92.0	74.0
South	23.5	5.9
Midwest	32.7	23.1
West	57.9	57.9
All Sections	**60.5%**	**51.4%**

	Central A/C	Heat Pump
New England	14.8%	*
Mid-Atlantic	38.0	18.0
South	*	*
Midwest	17.3	5.8
West	26.3	26.3
All Sections	**19.3%**	**10.0%**

Commercial

	Furnaces	Warm Air Systems
New England	51.9%	55.6%
Mid-Atlantic	42.0	36.0
South	11.8	5.9
Midwest	23.1	17.3
West	36.8	15.8
All Sections	**33.1%**	**26.1%**

	Central A/C	Heat Pump
New England	7.4%	*
Mid-Atlantic	24.0	14.0
South	*	*
Midwest	11.5	*
West	15.8	26.3
All Sections	**11.7%**	**8.1%**

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*Less than .1%

World Oil Production by Area

(Add 000 bbl.)

Year	United States	Canada	Latin America	Western Europe	Middle East	Africa	Asia-Pacific	Total Free World	Communist Nations	Total World
1984	3,249,696	516,426	2,315,682	1,331,874	4,128,114	1,713,978	1,164,978	14,420,748	5,332,620	19,753,368
1983	3,170,999	494,940	2,205,505	1,236,620	4,215,750	1,609,650	1,024,555	13,956,019	5,241,400	19,197,419
1982	3,156,715	452,965	2,255,355	1,085,145	4,581,480	1,622,790	961,410	14,116,160	5,278,995	19,395,155
1981	3,128,624	469,025	2,179,415	955,570	5,749,480	1,672,065	1,027,110	15,181,445	5,192,125	20,376,699
1980	3,146,365	521,184	2,036,058	893,406	6,735,498	2,226,378	1,000,278	16,559,304	5,206,350	21,760,880
1979	3,121,310	546,040	1,919,535	828,550	7,868,670	2,423,600	1,051,200	17,752,140	5,118,030	22,876,935
1978	3,175,927	483,260	1,736,427	643,149	7,884,927	2,233,791	1,037,520	17,195,001	4,963,250	22,158,251
1977	3,009,265	482,021	1,647,362	489,328	8,186,851	2,276,007	1,017,244	17,108,078	4,792,617	21,900,695

Source: American Petroleum Institute Data Book, January 1986

World Crude Oil Reserves by Area

(Add 000 bbl.)

Year (a)	United States	Canada	Latin America	Middle East	Africa	Asia-Pacific	Western Europe	Total Free World	Communist Nations	Total World
1985	28,446,000	7,075,000	83,315,700	398,380,750	55,540,550	18,529,900	24,425,500	615,713,400	84,100,000	699,813,400
1984	27,735,000	6,730,000	81,675,900	370,100,800	56,970,000	18,969,400	23,019,940	585,137,600	84,600,000	669,737,600
1983	29,785,000	7,020,000	74,482,066	369,285,893	57,821,690	19,756,077	22,923,680	583,147,406	85,115,000	668,262,406
1982	29,426,000	7,300,000	84,982,270	362,839,950	56,171,630	19,150,800	24,634,500	584,505,150	85,845,000	670,350,150
1981	29,805,000	6,400,000	69,489,837	362,071,000	55,148,375	19,630,500	23,085,000	565,629,712	86,300,000	651,929,712
1980	27,051,289	6,800,000	56.472,500	361,947,300	57,072,100	19,355,200	23,476,400	522,174,789	90,000,000	642,174,789
1979	27,803,760	6,860,000	41,246,500	369,996,000	57,892,125	20,007,200	23,966,000	547,771,585	94,000,000	641,771,585
1978	29,486,402	5,970,872	40,370,000	366,166,000	59,200,150	19,749,270	26,862,500	547,805,194	98,000,000	645,805,194

(a) As of Jan. 1 of each year.

Source: American Petroleum Institute Data Book, January 1986

World Crude Oil Refining Capacity by Area

(barrels per day)

Year	United States	Other Western Hemisphere	Total Western Hemisphere	Middle East	Africa	Asia-Pacific	Europe	Total Free World	Sino-Soviet Bloc	Total World
1985	15,658,769	9,457,706	24,857,706	4,052,673	2,447,156	10,393,562	15,654,622	57,664,488	17,500,000	75,164,488
1984	16,137,141	9,590,962	25.520,962	3,901,082	1,879,990	10,473,079	16,231,932	58,114,186	17,200,000	75,314,186
1983	16,859,337	9,873,816	26,773,153	3,685,333	1,822,105	10,902,204	17,124,989	60,327,784	16,873,000	77,200,784
1982	17,889,734	10,720,055	28,609,789	3,312,152	1,761,870	10,966,825	19,444,519	64,095,155	16,533,000	80,628,155
1981	18,620,520	10,716,881	29,337,401	3,729,646	1,697,658	10,554,691	20,205,799	65,524,895	16,036,500	81,561,395
1980	17,988,121	10,683,671	28,671,792	3,518,080	1,666,108	10,386,375	20,243,747	64,486,102	15,346,000	79,832,102
1979	17,440,885	10,273,030	27,713,915	3,546,029	1,667,608	10,284,966	20,328,614	63,541,132	14,748,000	78,289,132
1978	17,047,724	10,592,020	27,352,020	3,506,484	1,467,157	10,176,819	20,728,204	63,352,984	13,938,000	77,290,984

Source: American Petroleum Institute Data Book, January 1986

World Natural Gas Production by Area

(Add 000,000 cubic feet)

Year	United States	Canada	Latin America	Middle East	Africa	Asia-Pacific	Western Europe	Total Free World	Communist Nations	Total World
1984	—	—	—	—	—	—	—	—	—	—
1983	16,822,144	2,414,100	3,340,500	1,633,000	1,143,800	2,187,700	6,383,400	33,924,644	21,383,000	55,307,644
1982	18,519,675	2,546,100	3,091,500	1,799,700	1,168,900	2,176,600	6,142,100	35,424,575	20,258,000	55,682,575
1981	19,955,823	2,623,000	3,227,000	1,542,000	1,947,000	2,765,000	6,906,000	39,187,701	19,210,000	58,397,701
1980	20,179,724	2,668,300	3,297,500	1,221,300	884,700	2,558,400	6,668,700	37,677,687	21,069,900	58,747,587
1979	20,471,260	3,646,500	2,610,000	1,624,700	1,027,900	1,827,900	6,866,800	38,075,060	19,591,400	57,666,460
1978	19,974,033	3,128,056	2,012,912	1,579,478	1,117,416	1,469,154	6,649,855	35,930,904	15,818,398	51,749,302
1977	20,025,463	3,230,672	1,865,734	1,506,982	919,464	1,329,016	6,502,502	35,379,833	14,720,257	50,100,090

Source: American Petroleum Institute Data Book, January 1986

Crude Oil Reserves in 20 Leading Nations

Nation	Reserves (Add 000 bbl.) 1985	Reserves (Add 000 bbl.) 1984	% of Free World Reserves 1985	% of Free World Reserves 1984	% of Total World Reserves 1985	% of Total World Reserves 1984
Saudi Arabia (a)	169,000,000	166,000,000	27.4%	28.4%	24.1%	24.8%
Kuwait (a)	90,000,000	63,900,000	14.6	10.9	12.9	9.5
U.S.S.R.	63,000,000	63,000,000	—	—	9.0	9.4
Mexico	48,600,000	48,000,000	7.9	8.2	6.9	7.2
Iran	48,500,000	51,000,000	7.9	8.7	6.9	7.6
Iraq	44,500,000	43,000,000	7.2	7.3	6.4	6.4
Abu Dhabi	30,500,000	30,400,000	5.0	5.2	4.4	4.5
United States	28,446,000	27,735,000	4.6	4.7	4.1	4.1
Venezuela	25,845,000	24,850,000	4.2	4.2	3.4	3.7
Libya	21,100,000	21,270,000	3.4	3.6	3.0	3.2
China	19,100,000	19,100,000	3.4	3.3	2.7	2.9
Nigeria	16,650,000	16,550,000	2.7	2.8	2.4	2.5
United Kingdom	13,590,000	13,150,000	2.2	2.2	1.9	2.0
Algeria	9,000,000	9,220,000	1.5	1.6	1.3	1.4
Indonesia	8,650,000	9,110,000	1.4	1.6	1.2	1.4
Norway	8,300,000	7,650,000	1.3	1.3	1.2	1.1
Canada	7,075,000	6,730,000	1.1	1.2	1.0	1.0
Oman	3,500,000	(b)	0.6	—	0.5	—
India	3,500,000	3,485,000	0.6	0.6	0.5	0.5
Qatar	3,350,000	3,330,000	0.5	0.6	0.5	0.5
Total Free World	**615,713,400**	**585,137,600(c)**				
Total World	**699,813,400**	**669,737,000(c)**				

(a) Saudi Arabia and Kuwait equally share the production from the Neutral Zone located between the two nations, which had reserves of 5,995,000,000 in 1985, and 5,420,000,000 in 1984.
(b) Not ranked in top 20 in 1984; (c) Includes total of 3,450,000,000 credited to Egypt in 1984.
Source: American Petroleum Institute, Basic Data Book, January 1986 and some percentage calculations by *NPN*.

Crude Production in 20 Leading Nations

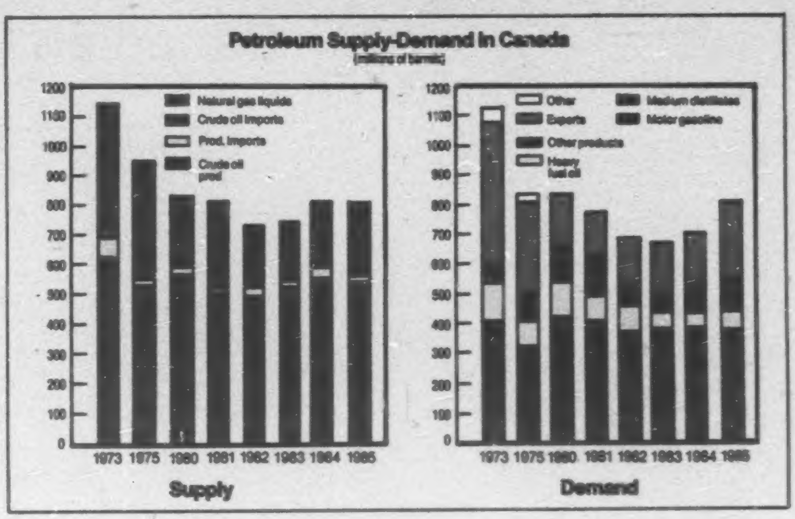
	Production (Add 000 bbl. and b/d)				% of Free World Production		% of Total World Production	
	1984		1983					
Nation	Total	b/d	Total	b/d	1984	1983	1984	1983
U.S.S.R.	4,344,420	11,903	4,363,900	11,956	—	—	22.0%	22.6%
United States	3,249,696	8,903	3,170,999	8,688	22.5%	22.7%	16.5	16.5
Saudi Arabia (a)	1,626,504	4,456	1,776,455	4,867	11.3	12.7	8.2	9.2
Mexico	1,005,036	2,754	979,660	2,584	7.0	7.0	5.1	5.1
United Kingdom	927,810	2,542	839,135	2,299	6.4	6.0	—	4.4
China	834,480	2,286	769,005	2,107	5.8	5.5	4.7	4.0
Iran	800,442	2,193	909,580	2,492	5.6	6.5	4.1	4.7
Venezuela	663,558	1,818	653,350	1,790	4.6	4.5	3.3	3.4
Indonesia	536,556	1,470	505,525	1,385	3.7	3.6	2.7	2.6
Canada	516,426	1,415	529,250	1,450	3.6	3.8	2.6	2.7
Nigeria	509,838	1,397	429,695	1,178	3.5	3.1	2.6	2.2
Iraq	440,298	1,206	336,530	922	3.1	2.4	2.2	1.7
United Emirates	401,502	1,100	408,070	1,118	2.8	2.9	2.0	2.1
Libya	392,718	1,076	392,740	1,076	2.7	2.8	2.0	2.0
Kuwait (a)	333,792	914	321,565	881	2.3	2.3	1.7	1.7
Egypt	302,682	829	251,485	700	2.1	1.8	1.5	1.3
Norway	256,200	702	224,110	614	1.8	1.6	1.3	1.2
Algeria	233,508	640	255,135	699	1.6	1.8	1.2	1.3
India	173,248	475	(b)	—	1.2	—	0.9	—
Australia	180,072	493	(b)	—	1.2	—	0.9	—
Total Free World	**14,420,748**	**39,509**	**13,988,260(c)**	**38,324**	—	—	—	—
Total World	**19,753,368**	**54,119**	**19,274,555(c)**	**52,807**	—	—	—	—

(a) Excludes Neutral Zone Production; (b) Not listed in top 20 companies in 1983; (c) 1983 totals include 190,895,000 for Brunei-Malaysia and 174,835,000 for Argentina.
Source: American Petroleum Institute, Basic Data Book, January 1986, with some percentage calculations by *NPN*.

Canadian Demand Up

As the two charts at right demonstrate, Canadian oil companies have been on the same marketing roller coaster ride as their U.S. counterparts. Beginning in 1973, the year of the embargo, Canadian supplies and demand fell substantially through the 1970s and early 1980s, reaching new lows in the recessionary 1982-83 period.

However, beginning in 1984, somewhat of a turnaround began, especially on the demand side. Although demand has remained static for domestic consumption of gasoline and distillates, marked increases were achieved in petroleum product exports. Between 1984 and 1985, Canadian exports increased almost 25%, for a total of approximately 53 million bbl.


Petroleum Supply-Demand in Canada
(millions of barrels)

Refined Product Sales in 1985

(Cubic Meters*)

	Aviation Gas	Motor Gas	Aviation Turbine	Kerosine	Diesel	Light Fuel	Heavy Fuel	Lubes & Greases
Newfoundland	4,889	546,468	240,309	44,112	482,599	283,725	572,091	12,875
Prince Edward Island	1,948	165,361	5,271	13,522	48,042	122,615	8,695	1,945
Nova Scotia	3,380	1,117,032	169,751	77,367	593,050	836,314	593,330	24,324
New Brunswick	2,549	893,487	31,347	36,443	364,587	462,701	1,056,945	19,866
Quebec	26,319	5,537,143	844,494	160,102	2,426,999	2,602,826	1,965,962	150,188
Ontario	42,903	9,386,222	1,422,935	153,071	3,866,481	2,324,652	102,226	454,000
Manitoba	20,781	1,466,329	172,551	62,819	858,091	60,754	80,007	32,049
Saskatchewan	11,294	1,863,251	84,442	152,820	1,138,804	113,025	34,891	92,404
Alberta	20,452	4,410,796	729,158	52,125	2,845,302	79,187	24,936	100,509
British Columbia	30,376	3,599,249	514,012	93,278	2,250,417	414,252	665,093	87,106
Yukon	3,242	51,976	3,741	13,462	43,940	22,348	0	948
Northwest Terr.	8,329	46,906	79,252	54,452	230,187	53,827	21,598	2,923
Total 1985	**176,462**	**32,798,934**	**4,297,263**	**913,573**	**15,148,499**	**7,376,226**	**5,868,091**	**931,080**
Total revised 1984	**177,412**	**32,914,816**	**4,143,526**	**871,049**	**14,782,992**	**7,921,680**	**7,226,840**	**931,743**

---

*Note: (cubic meters) × 6.2898 = barrels; also 1 barrel equals 42 U.S. gal.
Source: Statistics Canada

Gasoline Outlets[(a)]

Province	Outlets
Newfoundland	—
Prince Edward Island	194
Nova Scotia	1,525
New Brunswick	1,394
Quebec	—
Ontario	7,764
Manitoba	2,641
Saskatchewan	—
Alberta	10,933
British Columbia	9,739
Yukon	61
Northwest Territories	—

Source: Statistics Canada
(a) 1985 figures were not available. Figures shown are for 1984.

Premium Ratios

Province	Percent Premium * Dec. '84	Percent Premium * Nov. '85[(b)]
Alberta/Northwest Territories	5.4	5.0
British Columbia/Yukon	9.3	10.5
Manitoba	3.5	3.9
Maritimes	9.2	9.0
Newfoundland	5.0	4.6
Ontario	11.4	11.4
Quebec	17.1	18.4
Saskatchewan	3.3	3.2
Total Canada	**10.6**	**11.0**

---

*Contains leaded and unleaded premium.
(b) 1985 figures available only through November.
Source: Ethyl Corp., Chemicals Group

Canadian Oil Companies:

Company	Total branded retail outlets	Number of Provinces where marketed	BRANDED SERVICE STATIONS						
			Supplied directly	Supplied through jobbers & commission agents	Lessee/Dealer operated	Salary operated	Commission operated	Full-serve only	Self-serve only
Chevron Canada Ltd.	300	1	300	0	220	—	80	195	75
Esso Petroleum Canada	3,045	10	2,045	1,000	2,445	78	522	2,411	634
Federated Co-operatives Ltd.	505	4	505	0	0	505	0	457	48
Husky Oil Ltd.	317	6	—	—	308	0	0	283	20
Irving Oil Ltd. (a)	—	—	—	—	—	—	—	—	—
Mohawk Oil Co. Ltd.	333	5	273	60	188	110	35	119	115
Petro-Canada Products Inc. (b)	3,891	11	3,033	858	1,845	42	362	2,844	1,019
Provigo, Inc., Convenience Group	110	2	8	102	40	8	62	106	2
Shell Canada Ltd.	3,472	10	2,430	1,042	2,854	169	449	2,742	685
Spur Oil Co. Ltd. (a) (Div. of Murphy Oil Co. Ltd.)	—	—	—	—	—	—	—	—	—
Suncor, Inc. (c)	977	6	—	—	526	288	139	—	—
Sunys Petroleum Inc.	205	2	178	27	84	4	117	168	37
Texaco Canada (d)	2,261	10	—	—	—	—	—	1,698	563
Turbo Resources Ltd.	239	6	218	21	66	0	173	229	10
Ultramar Canada Inc.	1,523	6	1,523	0	1,326	197	0	80%	15%

(a) Did not respond.
(b) Acquired Gulf Canada Ltd. in 1985.
(c) Formerly Sunoco Inc.
(d) Did not respond—figures are for year-end 1984.

Brand Names of Gasoline and Motor Oils

Chevron Canada Ltd.

Gasoline	Motor Oil
Chevron (r,ur)	Chevron
Chevron Supreme (up)	

Esso Petroleum Canada

Gasoline	Motor Oil
Esso (r)	Esso Plus
Esso 2000 (ur)	Esso Extra Motor Oil
Esso Extra Unleaded (up)	Uniflo

Federated Co-operatives Ltd.

Gasoline	Motor Oil
Sonic (r,ur,p,up)	HD7
Co-op (d,o)	DMO
Agripower (r)	Multrex
Tempo (r,ur,p,up)	Sonic Silver
	Sonic Gold
	Tempo HD

Husky Oil Marketing Co.

Gasoline	Motor Oil
Husky (r,ur,up)	Husky Heavy Duty
	Husky Heavy Duty Special
	Husky Stratolube
	Husky Stratoplus
	Husky Superlube
	Husky Super Duty

Mohawk Oil Co. Ltd.

Gasoline	Motor Oil
Mohawk (r,ur,up)	Mohawk 10W30
Speedway (r,ur,up)	Mohawk Multigrade
Payless (r,ur,up)	Mohawk Premium
	Mohawk Heavy Duty Plus
	Duckhams
	Canadian Pride

Murphy Oil Co. Ltd.

Gasoline	Motor Oil
Spur (r,ur,up)	Spur
Gas (r,ur,up)	

Petro-Canada Products Inc.

Gasoline	Motor Oil
Petro-Canada (r,ur,up)	XHD Multi
	Sentinel Super Plus
	Process Oil Harmony

Provigo Inc., Convenience Group, Central Div.

Gasoline	Motor Oil
Top Valu (r,ur,p,up)	Top Valu
	Castrol

Shell Canada Ltd.

Gasoline	Motor Oil
Shell (r,ur,up)	Shell X100
	Shell TLO

Suncor, Inc.

Gasoline	Motor Oil
Sunoco Regular (r)	Dynalube
Sunoco ½&½ Leaded (r,up)	Sunfleet
Sunoco Premium Leaded (r,up)	Special
Sunoco Regular Unleaded (ur)	CAM2
Sunoco ½&½ Unleaded (ur,up)	
Sunoco Premium Unleaded (up)	
Pronto (r,ur,up)	

Sunys Petroleum Inc.

Gasoline	Motor Oil
Sunys (r,ur,up)	Drive N Save
Sipco (r,ur,up)	
Econobec (r,ur,up)	

Texaco Canada Ltd.

Gasoline	Motor Oil
Texaco (r,ur,up)	Havoline Supreme
	Havoline
	URSA Super Plus Multigrade
	URSA Super Plus Singlegrade

Convenience Div./Loeb Inc. (formerly Top Valu Gasmarts)

Gasoline	Motor Oil
Top Valu (r,ur,p,d)	Top Valu

Turbo Resources Ltd.

Gasoline	Motor Oil
Premium No Lead (up)	Flo-Rite
Regular No Lead (ur)	Turbo
Regular Leaded (r)	Red Ram
Regular Purple	
Diesel Fuel Clear	
Diesel Fuel Purple	

Ultramar Canada Inc.

Gasoline	Motor Oil
Ultramar (r,ur,p,up)	Ultralube
Spur (r,ur,up)	Ultralube Mono-grade HD
Pipeline (r,ur,up)	Ultralube Super Multigrade
XL (r,ur,up)	Spur Multigrade
	Spur Supreme
	Castrol

KEY

Gasoline:

(r) Regular
(p) Premium
(ur) Unleaded
(up) Unleaded Premium

Motor Oils: Brand names are listed lowest-price grade first.

How Distribution is Organized

	BRANDED JOBBERS/COMMISSION AGENTS				BULK PLANTS				TERMINALS			
		SELLING ...				COMPANY OPERATED ...				COMPANY OPERATED ...		
Full-serve/ Self-serve	Total	Gasoline only	Fuel Oil only	Gasoline and Fuel Oil	Total	Salary operated	Commission operated	Jobber operated	Total	Salary operated	Commission operated	Jobber operated
30	32	0	0	32	0	0	0	32	3	3	0	0
0	563	0	0	563	692	41	631	20	51	43	8	0
0	6	6	0	0	316	316	—	—	0	0	0	0
5	31	0	0	31	0	0	0	0	0	0	0	0
—	—	—	—	—	—	—	—	—	—	—	—	—
19	38	0	0	38	—	—	—	3	—	—	—	—
28	633	0	0	633	190	62	128	166	64	51	13	—
2	102	101	0	1	0	0	0	0	0	0	0	0
45	398	0	0	398	211	0	211	190	31	31	0	0
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
0	2	0	0	2	0	0	0	0	0	0	0	0
—	—	—	—	—	—	—	—	—	—	—	—	—
0	23	0	0	23	14	0	14	1	0	0	0	0
5%	100-PLUS	—	—	—	100-PLUS	0	100-PLUS	—	40-PLUS	40-PLUS	0	0

Branded Retail Outlets in Canada

Company	Total branded retail outlets	Number of Provinces	Newfoundland	Nova Scotia	New Brunswick	Quebec	Ontario	Prince Edward Island	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories	Yukon
Chevron Canada Ltd.	300	1	—	—	—	—	—	—	—	—	—	300	—	—
Esso Petroleum Canada	3,045	10	194	179	152	553	711	33	224	280	325	394	—	—
Federated Co-operatives Ltd.	505	4	—	—	—	—	—	—	80	318	63	44	—	—
Husky Oil Ltd.	317	6	—	—	—	—	52	—	28	39	107	84	—	7
Irving Oil Ltd. (a)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mohawk Oil Co. Ltd.	333	5	—	—	—	—	3	—	25	36	186	83	—	—
Petro-Canada Products, Inc. (b)	3,891	11	14	123	87	791	1,407	12	245	326	442	422	22	—
Provigo, Inc., Convenience Group	110	2	—	—	—	18	92	—	—	—	—	—	—	—
Shell Canada Ltd.	3,472	10	1	114	111	849	1,205	28	306	220	295	343	—	—
Spur Oil Co. Ltd. (a) (Div. of Murphy Oil Co. Ltd.)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Suncor, Inc. (c)	977	—	—	—	1	291	669	—	2	—	7	7	—	—
Sunys Petroleum Inc.	205	2	—	—	—	29	176	—	—	—	—	—	—	—
Texaco Canada (d)	2,261	10	39	117	115	381	837	23	94	106	195	154	—	—
Turbo Resources Ltd.	239	6	—	—	—	—	1	—	11	53	136	36	2	—
Ultramar Canada Inc.	1,523	6	237	73	37	995	74	7	—	—	—	—	—	—

(a) Did not respond.

(b) Acquired Gulf Canada Ltd. in 1985.

(c) Formerly Sunoco Inc.

(d) Did not respond—figures are for year-end 1984.

Gasoline Shares by Key Categories—1985

In 1985, a new study on the Canadian retail gasoline market in 1984 was introduced by MPSI Americas, Inc., Tulsa, Okla., a company specializing in international computer software and information services along with market research and planning. Now, MPSI has released its updated study covering the year 1985.

With data now available for both 1984 and 1985, comparisons between the two years can now be made. Figures for the two years are shown in the table below.

The study portrays, on both a national and regional basis, market shares and percentages of outlets for conventional service stations, big gasoline pumpers, convenience stores that sell gasoline, plus a general category of "others" including car washes, garages and other facilities where gasoline is secondary.

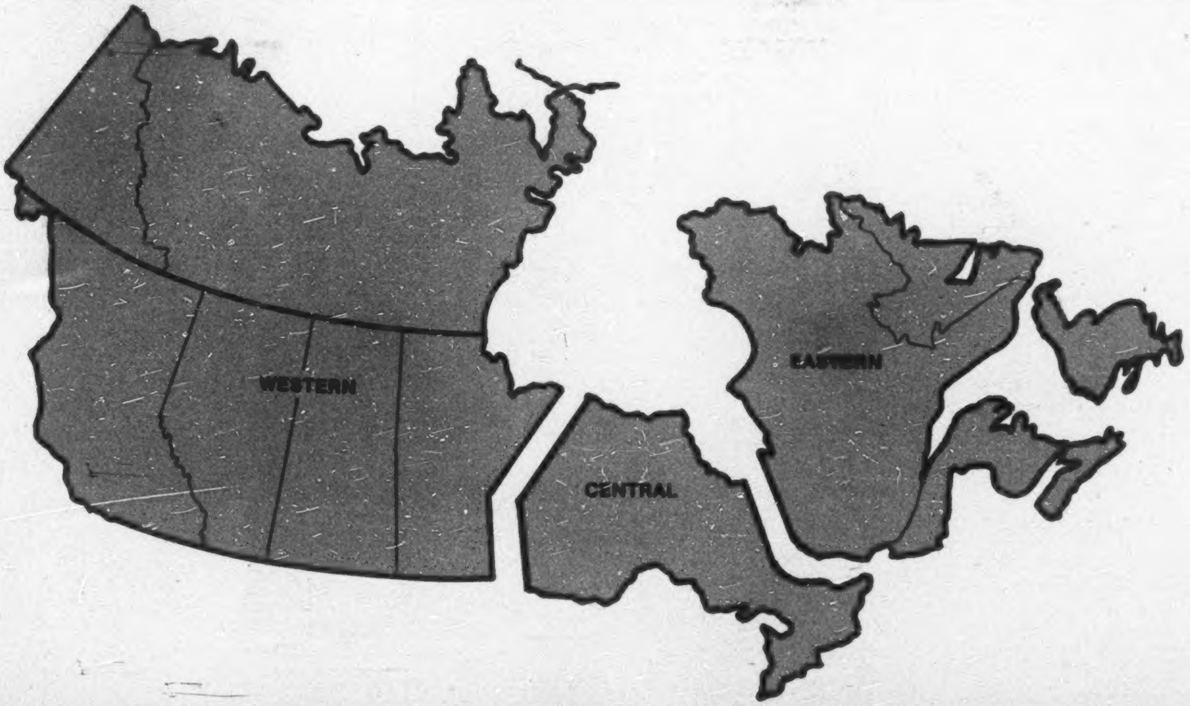
This study is concentrated primarily in the metropolitan areas of Canada, where most gasoline is marketed. It makes no attempt to count rural and highway vendors which, while important to the industry, do not add significantly to the overall consumption data.

Some striking differences between the Canadian and U.S. retail markets are evident in the MPSI study (See the companion study for the U.S. on p118). The marketing phenomenon represented by the growth of C-store/gasoline outlets in the U.S. has apparently not taken hold in Canada yet. Convenience store market share in Canada is relatively insignificant, although there was some growth in market share and percentage of outlets from 1984 to 1985.

Regional and National Market Shares

	Service Stations		Pumpers		Convenience Food Stores		Others		Total	
	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984
Eastern Region										
• % of Outlets	53.1	46.6	24.4	20.7	6.2	5.7	16.3	27.0	100.0	100.0
• % of Volume	48.5	44.9	37.8	35.6	5.1	4.9	8.6	14.6	100.0	100.0
• Avg. Monthly Volume (Liters)(a)	130,709	137,736	222,129	242,458	117,460	121,367	75,329	75,181	143,073	140,558
Central Region										
• % of Outlets	58.7	57.0	28.0	26.0	0.9	0.7	12.4	16.3	100.0	100.0
• % of Volume	53.6	51.3	41.0	41.7	0.8	0.6	4.6	6.4	100.0	100.0
• Avg. Monthly Volume (Liters)	193,198	190,940	311,129	340,412	193,000	188,066	79,630	82,422	211,899	211,997
Western Region										
• % of Outlets	46.9	56.4	35.8	27.7	3.8	1.7	13.5	14.2	100.0	100.0
• % of Volume	48.4	58.9	44.3	34.4	2.4	1.3	4.9	5.4	100.0	100.0
• Avg. Monthly Volume (Liters)	201,469	202,842	241,321	241,890	125,754	149,762	69,548	74,811	195,033	194,479
Total Canada										
• % of Outlets	53.2	52.4	28.6	24.0	3.8	3.1	14.4	20.5	100.0	100.0
• % of Volume	50.5	51.0	41.1	37.8	2.7	2.3	5.7	8.9	100.0	100.0
• Avg. Monthly Volume (Liters)	169,324	172,616	255,781	279,164	124,963	130,491	70,604	77,133	178,123	177,346

(a) 3.7854 liters equal 1 American gal.; 4.5461 liters equal 1 Imperial gal., which is the conventional standard in Canada.
Source: MPSI Americas, Inc., Tulsa, Okla.



Canadian Statistics

Motor Vehicle Registrations 1984

	Passenger Cars	Trucks	Buses	Motorcycles	Other	Total Vehicles	Trailers	Off-road		Licensed gasoline outlets
								Snowmobiles	Other	
Newfoundland	154,480	67,630	NA	9,055	5,289	236,454	27,980	35,000	2,937	NA
Prince Edward Island	52,538	18,476	408	2,153	227	73,802	5,529	25	463	193
Nova Scotia	347,303	140,449	1,320	18,885	902	508,859	43,698	7,175	7,029	1,326
New Brunswick	268,686	110,626	NA	11,817	12,506	403,637	57,603	7,783	NA	1,482
Quebec	2,466,201	300,912	14,336	112,083	27,791	2,921,223	493,601	82,797	167,761	NA
Ontario	3,904,706	858,213	23,765	146,205	8,356	4,941,245	816,668	169,172	28,368	8,145
Manitoba	492,872	194,812	136	18,007	75	705,902	88,451	38,574	107	NA
Saskatchewan	378,425	307,573	3,891	8,940	681	699,510	99,748	12,359	NA	NA
Alberta	1,274,482	403,051	7,991	59,638	NA	1,745,162	247,539	22,305	15,420	NA
British Columbia	1,427,198	620,539	NA	81,690	NA	2,129,427	256,476	49,181	427	NA
Yukon	6,943	11,876	125	795	NA	19,798	4,161	432	NA	NA
Northwest Territories	6,833	12,730	112	1,177	75	20,953	3,459	NA	1,162	NA
Canada	**10,780,667**	**3,046,889**	**52,169**	**470,445**	**56,302**	**14,405,972**	**2,144,913**	**424,803**	**207,827**	**11,146**

Source: All tables courtesy of Statistics Canada.

Automobiles Per Household 1985
estimates in thousands

	Household	Households with automobiles				without autos	Vans or trucks		Households without automobiles
		Total	1 auto	2 autos	3 or more autos		Households with 1	with 2 or more	
Newfoundland	162	98	79	16	4	64	46	—	38
Prince Edward Island	42	35	25	8	—	6	11	—	5
Nova Scotia	300	225	169	48	8	76	67	5	57
New Brunswick	235	181	138	37	6	54	59	5	38
Quebec	2,376	1,720	1,313	355	52	656	257	19	577
Ontario	3,268	2,610	1,752	717	141	658	553	45	552
Manitoba	388	293	212	69	12	95	92	15	74
Saskatchewan	365	290	206	66	19	75	118	37	48
Alberta	832	659	446	177	37	173	246	60	108
British Columbia	1,110	890	632	220	38	220	314	39	146
Canada 1985	**9,079**	**7,002**	**4,972**	**1,712**	**319**	**2,077**	**1,763**	**229**	**1,642**

Note: Data from a sample survey only.
—amount too small

New Motor Vehicle Sales

	Total, new motor vehicles	Passenger cars	Commercial vehicles	North America	Japan	Other Countries(1)
1985	1,530,410	1,137,216	393,194	794,965	199,221	143,030
1984	1,283,502	971,210	312,292	724,932	171,204	75,074
1983	1,081,088	843,318	237,770	625,088	176,525	41,705

(1) Excludes Japanese and North American manufactured vehicles.

Factory Sales of Auto Batteries

	1985	$	1984	$
Original Equipment	confidential	confidential	confidential	confidential
Replacement	2,938,804	108,907,650	2,940,626	103,157,892
Heavy-duty transport, motor coach, bus, diesel, starting batteries, for replacement	482,200	23,544,637	443,301	21,390,620

Drivers' Licenses 1984

	Operators (drivers & chauffers)	Temporary (instructor permits)
Newfoundland	231,660	14,628
Prince Edward Island	26,996	3,266
Nova Scotia	530,304	14,206
New Brunswick	400,906	22,780
Quebec	3,609,699	NA
Ontario	5,513,911	NA
Manitoba	598.960	NA
Saskatchewan	642,358	NA
Alberta	1,690,884	106,472
British Columbia	2,254,941	—
Yukon	16,749	1,134
Northwest Territories	20,514	1,231
Canada	**15,539,882**	**163,717**

Principal Heating Fuels in 1985
(000 Households)

	Oil	Piped Gas	Bottled Gas	Electricity	Other	Wood	Total Households
Newfoundland	54	—	—	51	—	40	145
Prince Edward Island	27	—	—	—	—	9	37
Nova Scotia	155	—	6	22	7	45	235
New Brunswick	75	—	—	70	—	45	191
Quebec	349	45	—	680	—	90	1,168
Ontario	526	1,297	NA	353	—	94	2,285
Manitoba	29	180	4	72	—	11	297
Saskatchewan	44	230	12	16	—	6	309
Alberta	14	612	12	—	—	NA	646
British Columbia	148	469	7	141	—	68	833
Canada	**1,421**	**2,834**	**58**	**1,408**	**14**	**412**	**6,146**

Note: Data from a sample survey only.
—amount too small

Oil Company Credit Cards in Canada—1985

(Add 000 in all categories)

Company	Active Accounts	Total Proprietary Cards	Proprietary Sales Volume	Bank Card Sales Volume	T & E Sales Volume	Total Credit Sales
Shell	474	1,566	$412,509	$510,000	$80,475	$1,002,984
Texaco	451	1,670	386,372	347,600	30,000	763,972
Esso	421	1,498	342,387	322,000	—	664,387
Gulf	232	799	178,187	191,000	—	369,187
Petro	221	867	219,465	211,000	—	430,465
Sunoco	128	483	122,798	150,000	10,000	282,798
Irwin	51	201	55,975	62,500	—	118,475
Chevron	28	107	21,701	20,000	—	41,701
Ultramar	8	32	6,710	5,350	—	12,060
Husky	7	22	6,140	3,120	—	9,260
Mohawk	4	11	3,570	3,982	—	7,552
Totals	**2,025**	**7,256**	**$1,755,814**	**$1,826,552**	**$120,475**	**$3,702,841**

Source: The Nilson Report, December 1985 (U.S. Publication)

Credit cards are more popular in Canada than they are in the United States because the service stations north of the border do not give discounts for cash purchases as their American counterparts have been doing in recent years.

Shell is by far the leader in Canadian credit card sales, doing more than $1 billion worth of business via the plastics in 1985, according to The Nilson Report, a private newsletter published in the U.S. for credit card executives in oil and other industries.

Surprisingly, Shell does more business with bank cards than it does with its own proprietary card. Gulf, Sunoco, Irwin and Mohawk also saw greater use of bank cards than their own at their stations last year, but the margins weren't as big as those of Shell's.

Texaco had more credit cards outstanding 1985 than Shell—about 100,000 more. Esso was third.

In all, Canadian motorists charged up $3.7 billion worth of gasoline purchases in 1985, according to Nilson. Nilson said this was about 38% of the total retail sales in Canada last year. (See the Retail Section in this issue for comparable detail on U.S. credit card sales.) For additional information on The Nilson Report, the address is P.O. Box 49936 (Barrington Station) Los Angeles, CA 90049; phone (213) 476-5094.

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LPG Sales by States and Uses

(Add 000 gal.)

	Residential and Commercial	Industrial (a)	Engine Fuel	Utility Gas	Farm	Other (b)	Total (c) (d)
Alabama	131,792	7,140	17,062	w	21,542	w	178,075
Alaska	w	1,256	w	0	w	w	w
Arizona	40,186	9,354	11,383	0	5,494	w	66,727
Arkansas	118,529	5,213	14,758*	0	29,839*	w	168,904
California	241,190	193,002	150,378	2,565*	42,134	13,271*	739,859
Colorado	71,213*	12,422*	7,804	w	6,147	3,165	103,705
Connecticut	28,881	13,912	2,707	3,048	726	255*	51,282*
Delaware	27,929	12,246	427	w	6,555	1,856*	49,652*
Florida	269,668*	21,305*	34,220	7,596	12,593	w	347,271
Georgia	187,713	17,389	20,287	w	36,302	1,578*	263,364*
Hawaii	w	0	w	0	w	0	w
Idaho	14,232	7,486	6,439	0	2,962	696	31,815
Illinois	258,559*	45,873	73,606	30,298*	286,202	4,042*	794,996
Indiana	214,628	8,981	23,004	8,374	99,447	2,982*	357,416*
Iowa	230,449	11,171	15,050	w	268,105	456	528,416*
Kansas	78,977	178,443	10,810	278,165*	88,422	26,021	756,234
Kentucky	105,427	88,305*	30,675	427	14,553	353*	260,962
Louisiana	59,112	54,549	27,291	65,043*	7,151	28,785*	982,522
Maine	12,054	6,026	1,334	w	27	w	22,935
Maryland & D.C.	54,318*	28,837	5,386	w	5,634	2,055*	96,840*
Massachusetts	44,786	6,454	6,531	7,027	353	568*	65,990*
Michigan	346,157	39,704	45,666	w	48,374	4,859	484,763*
Minnesota	187,710	21,522	18,697	2,797	102,344	655*	333,725*
Mississippi	104,911	68,946	22,470	0	20,051*	1,775*	218,242
Missouri	247,827	37,095	19,335	7,849	23,922	4,777*	340,805*
Montana	23,697	9,499*	5,213	0*	9,100	730	49,258
Nebraska	59,917	4,714	7,557	w	73,305	1,089	149,236
Nevada	27,849	2,481	3,760	0	1,530	746	36,366
New Hampshire	38,869	6,975	1,616	2,150	26	w	50,017
New Jersey	48,068	22,074*	12,338	w	2,912	6,138	264,907
New Mexico	38,784	63,085	6,387	w	1,689	800*	153,130
New York	154,395	17,615	13,343	13,964	7,863	870*	208,193*
North Carolina	164,793	23,652	13,204	203	94,136	1,530*	299,367
North Dakota	10,062	1,780	2,095	0*	14,764	w	31,484*
Ohio	258,884	42,005*	56,928	66*	83,416	3,703*	504,464
Oklahoma	123.493*	66,011	14,070	6,594*	36,265	577	272,150
Oregon	24,364	7,431*	25,250	0	3,006	643	60,694*
Pennsylvania	119,013	39,215	23,120	5,619	18,732	1,620*	239,876*
Rhode Island	8,482	2,118	1,969	0	16	377*	12,962*
South Carolina	82,116	7,518	8,837	169	9,377	235*	108,489*
South Dakota	47,269	930*	2,909	w	17,721	w	69,586
Tennessee	90,770	14,229	25,100	w	6,840	717*	137,847*
Texas	316,487	526,120	63,127*	237,383*	62,105	11,004	4,066,334
Utah	33,469*	7,420	8,694	w	2,057	2,625*	62,630
Vermont	26,120	891	1,067	w	49	w	28,321
Virginia	90,690	23,448	8,928	885	22,538	10,398*	157,263*
Washington	26,559	17,679*	42,235	0	5,332	728	92,533*
West Virginia	10,512	2,405*	1,318	w	726	25	15,031*
Wisconsin	255,595	13,823	28,507	2,527	57,819	4,631*	364,777
Wyoming	24,485*	19,920	4,818	11,475	2,535	3,798*	75,340
U.S. Total	**5,202,876**	**1,887,945**	**951,089**	**921,144**	**1,663,387**	**393,142**	**14,789,925**

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* Propane only; butane withheld; w-data withheld to avoid disclosing reports for individual companies. These reports are included in totals, however; (a) includes refinery fuel; (b) includes secondary recovery of petroleum and synthetic natural gas feed stocks; (c) includes chemical use; (d) 1984 LPG sales as reported by API differ from 1984 LP-Gas Production reported by Energy Information Administration because API sources concluded that the EIA report understated butane used in refineries for gasoline production.

Source: Liquefied Petroleum Gas Assn./American Petroleum Institute, 1983-84 LP-Gas Market Facts.

LPG Sales Trends in Recent Years (a)

Major Domestic Markets (Add 000,000 gal.)

	Total U.S. Sales		Residential-Commercial		Chemical		Internal Combustion		Industrial		Farm	
Year	**Vol.**	**% Change**	**Vol.**	**% Change**	**Vol.**	**% Change**	**Vol.**	**% Change**	**Vol.**	**% Change**	**Vol.**	**% Change**
1984	15,129	10.5%	5,203	(14.6%)	4,109	26.7%	951	(30.2%)	1,888	54.7%	1,663	40.7%
1983	13,688	(1.6)	6,090	(1.5)	3,244	(3.5)	1,362	9.8	1,220	(6.9)	1,183	(8.0)
1982	13,915	(3.3)	6,180	(2.1)	3,362	(3.2)	1,240	9.7	1,310	(5.0)	1,285	(12.1)
1981	14,395	(3.8)	6,310	(3.4)	3,474	(3.1)	1,130	3.6	1,380	(10.9)	1,463	(4.4)
1980	14,969	(8.9)	6,531	(4.9)	3,584	(11.3)	1,090	4.3	1,548	(20.2)	1,529	(15.4)
1979	16,432	9.4	6,871	1.2	4,043	12.7	1,045	5.5	1,940	44.8	1,764	—
This is as far back as the restated API/LPGA data go on sales trends. The figures below are Energy Information Administration data and are not essentially comparable to the restated data above. In the data below, the last column was for "all other uses" instead of farm consumption.												
1978	15,023	−3.1	6,954	−3.0	3,563	−0.4	993	−13.3	1,340	28.4	2,172	−15.6
1977	15,508	−3.2	7,169	−2.0	3,578	−12.4	1,145	−2.1	1,044	—	2,573	7.5
1976	16,013	5.3	7,313	4.2	4,085	−2.1	1,170	—	1,052	−2.8	2,394	35.8
1975	15,200	−6.8	7,020	−2.9	4,172	−23.0	1,162	−11.3	1,082	1.2	1,763	38.3
1970	15,271	26.6	7,569	41.6	5,003	24.8	1,336	11.9	897	32.1	467	125.6
1965	11,434	33.7	5,346	26.5	4,008	54.6	1,194	33.0	679	13.9	207	−23.0
1960	8,579	40.1	4,225	50.8	2,593	36.5	898	37.7	596	13.7	269	9.3

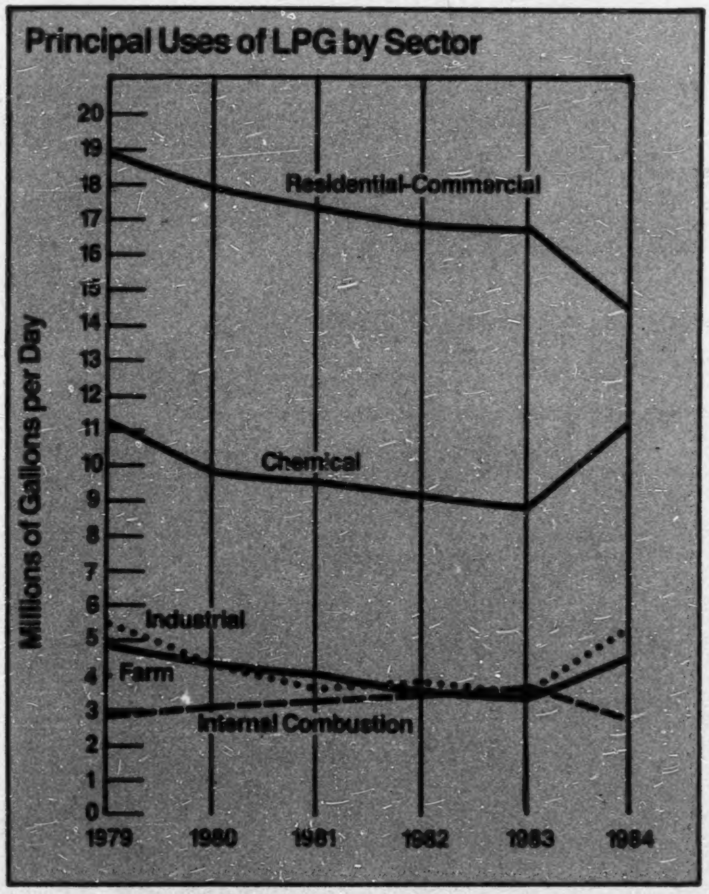
(a) In 1984, Energy Information Administration suddenly terminated collection of LPG sales data for budgetary reasons. American Petroleum Institute, Liquefied Petroleum Gas Assn. and others began a cooperative effort to provide the missing data annually. The 1983 and 1984 data were published in March, 1986. The new information is based on EIA data, plus API and LPGA, and are restated for the years 1979 through 1984. Utility gas, refinery fuel and miscellaneous uses are included in U.S. totals but are not stated separately.
Source: Liquefied Petroleum Gas Assn., 1983-84 LP-Gas Market Facts, published 1986.

LPG Consumption Rises 10.5% in 1984 After Four Years of Decline

Consumption of liquefied petroleum gases jumped 10.5% to 15.1 billion gal. in 1984 after four years of decline. It was the best year since 1979 when consumption amounted to 16.4 billion gal., according to new figures prepared by Liquefied Petroleum Gas Assn. and American Petroleum Institute and published in early 1986 as a replacement for data suddenly terminated by Energy Information Administration due to budget cuts. LPGA and API plan to continue the industry series indefinitely.

Principal increases in 1984 were attributed to the chemical, industrial and farm sectors. Residential-commercial consumption continued its steady decline in 1984 while demand for internal combustion engines took a sharp drop—30%—after five years of steady growth. It was not clear in the 1984 data whether this was a statistical aberration or whether the decline was a true reflection of marketplace needs.

The table above gives the totals for the principal uses for LPG. LPG used in refineries is included in the industrial consumption column while that used for utility gas, secondary recovery of petroleum and as a synthetic natural gas feedstock are included in the U.S. totals but are not stated separately.

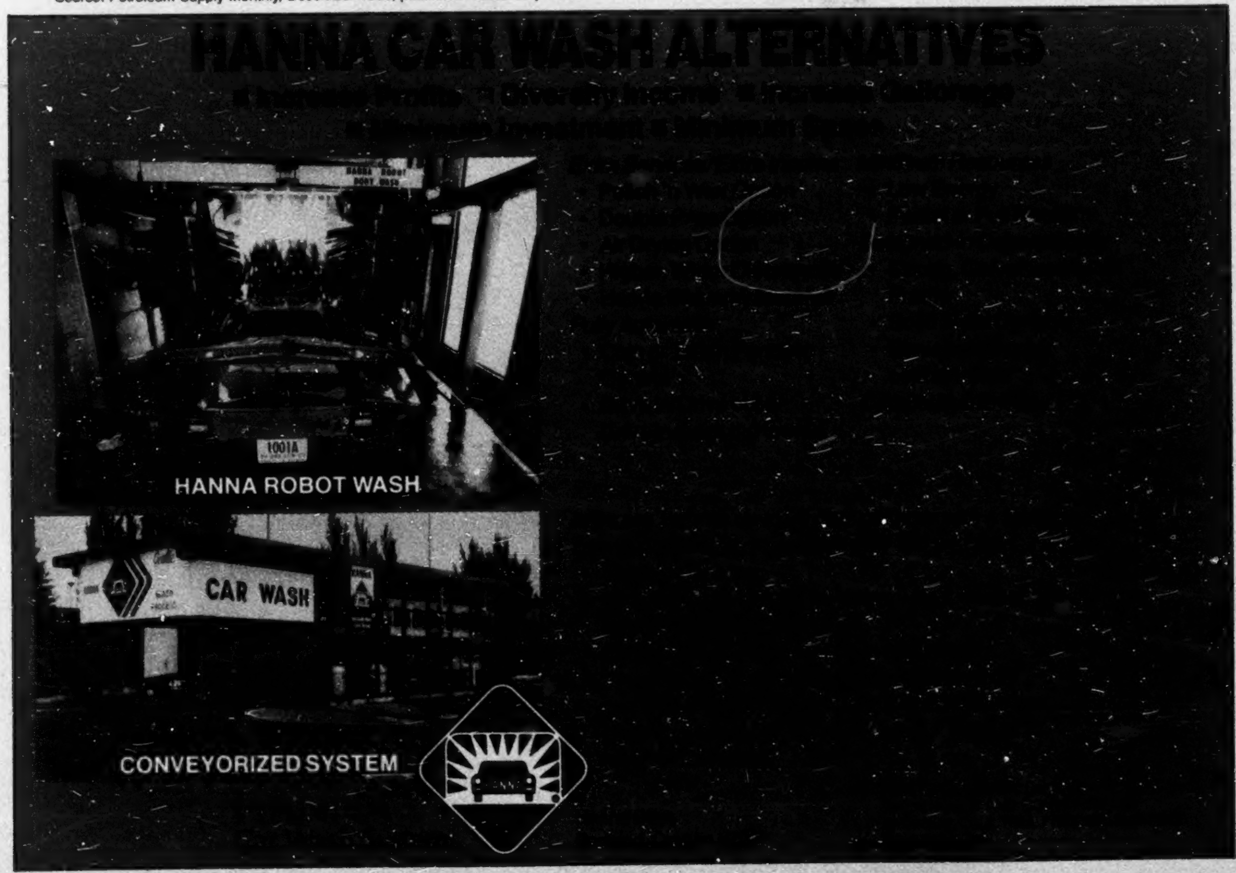


Source: Graph by *NPN* based on Liquefied Petroleum Gas Assn./American Petroleum Institute data.

LPG Supply and Disposition 1985-1974

	Supply			Disposition			Ending Stocks(a)
	Total Production	Imports	Stock Withdrawal	Refinery Inputs	Exports	Products Supplied	
			(Add 000 b/d)				(Million bbl.)
1985 January	1,658	255	466	309	70	2,001	86
February	1,682	237	338	313	72	1,872	77
March	1,672	223	−13	270	52	1,560	77
April	1,691	156	−115	260	78	1,394	81
May	1,703	138	−217	235	40	1,349	88
June	1,736	161	−173	244	51	1,449	93
July	1,733	131	−107	243	68	1,447	96
August	1,721	161	−103	267	80	1,432	99
September	1,675	132	84	311	29	1,551	97
October	1,661	209	270	322	47	1,770	88
November	1,727	188	135	360	88	1,600	84
December	1,783	239	374	367	75	1,953	73
Average	**1,704**	**187**	**77**	**292**	**62**	**1,614**	**—**
1984 January	1,615	269	494(b)	340	23	2,015	93
February	1,696	237	122	324	41	1,690	89
March	1,696	241	12	288	68	1,593	89
April	1,716	155	−139	253	54	1,426	93
May	1,714	211	−240	244	42	1,399	100
June	1,714	158	−201	237	53	1,380	106
July	1,725	132	−139	232	43	1,444	111
August	1,711	154	−100	241	34	1,490	114
September	1,693	128	−50	283	26	1,462	115
October	1,684	207	138	322	56	1,650	111
November	1,716	212	89	376	52	1,588	108
December	1,679	237	239	349	82	1,724	101
Average	**1,697**	**195**	**19**	**291**	**48**	**1,572**	**—**
1983 Average	**1,642**	**190**	**4**	**253**	**73**	**1,509**	**101(b)**
1982 Average	**1,528**	**226**	**111**	**300**	**65**	**1,499**	**94(b)**
1981 Average	**1,571**	**244**	**−18(b)**	**289**	**42**	**1,466**	**135**
1980 Average	**1,535**	**216**	**−27**	**233**	**21**	**1,469**	**120(b)**
1979 Average	**1,556**	**217**	**70**	**236**	**15**	**1,592**	**111**
1978 Average	**1,537**	**123**	**12**	**239**	**20**	**1,413**	**132**
1977 Average	**1,566**	**161**	**−55**	**233**	**18**	**1,422**	**136**
1976 Average	**1,535**	**130**	**24**	**260**	**25**	**1,404**	**116**
1975 Average	**1,527**	**112**	**−35(b)**	**246**	**26**	**1,333**	**125**
1974 Average	**1,565**	**123**	**−38**	**220**	**25**	**1,406**	**113(b)**

(a) Stocks are totals as of end of period; (b) In January 1975, 1981, 1983 and 1984, a new stock basis was established affecting stocks reported and stock withdrawal.
Source: Petroleum Supply Monthly, December 1985, published in February 1986.



Lube Sales Slip in 1985

Lubricant sales dipped 2.7% in 1985, according to National Petroleum Refiners Assn., which said the total included automotive and industrial oils and greases. Automotive oils fared better than the total product average, however, being down only seven-tenths of a percentage point from 1984.

The NPRA report does not give volumes, only indexes and percentages which are based on the reports of the participating companies. To preserve the confidentiality aspects of company sales, the reports are given to an independent auditor who converts them into indexes on an industry-wide basis.

The product categories, as defined by NPRA, are these: automotive oil—engine oils, automatic transmission fluids, gear oils and aviation oils; industrial oil—industrial engine oils, metalworking fluids, process oils and general industrial oils; grease—both automotive and industrial greases.

All finished lubricants are included in the NPRA totals. Not included, however, are exports and lube base stocks sold for further blending into finished lubricants.

NPRA stated that the data reflect the sales of the participating companies only. Sales of finished lubricants by other companies (commonly known as independent compound blenders) are not covered.

For its category breakdown, NPRA used 55.5% of the sales for automotive oils, 42.3% for industrial oils, and 2.2% for greases.

The NPRA study is relatively new, having been started in 1982.

It noted that total sales rose 5.2% in 1983 over 1982, and 9.4% in 1984 over 1983. But 1985 was a down year almost all the way around. Only automotive oils showed gains in the second and third quarters in the sea of minus signs for industrial oils and greases.

Quarterly Indexes on Lubricant Sales(a)

	Quarters				
	1	2	3	4	Full Year
1982	91.8	95.9	92.4	81.4	95.2
1983	89.8	98.9	98.3	92.7	94.9
1984	103.1	108.5	106.2	97.5	103.8
1985	99.2	107.4	103.3	103.3	101.0

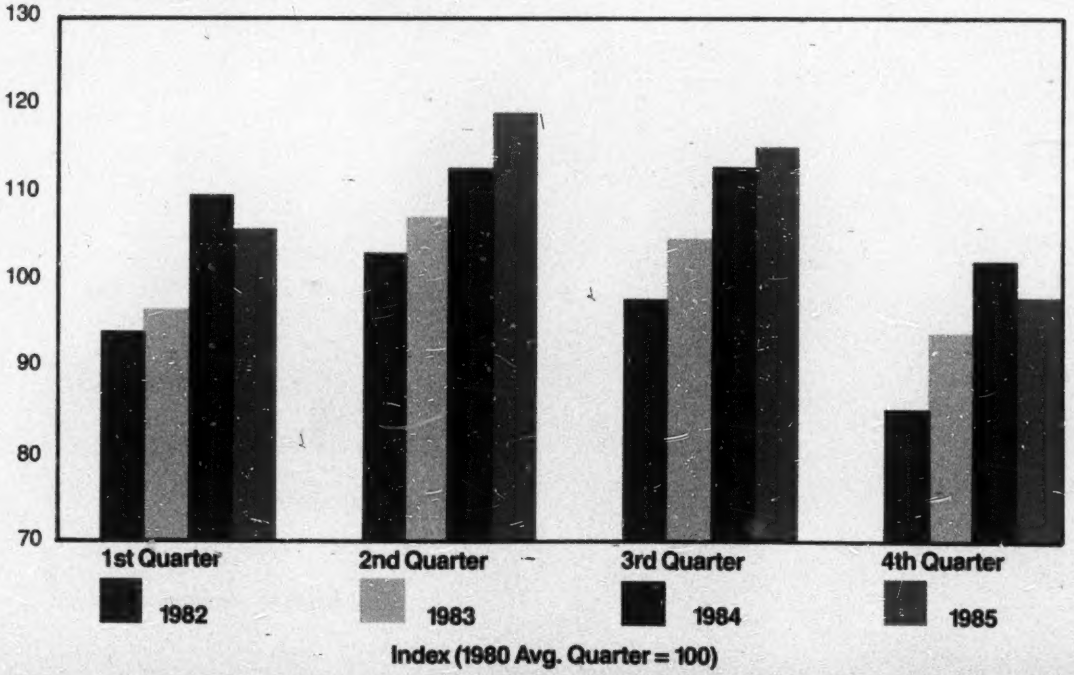
Percentage Changes by Product and Quarters

	Quarters				
1985 vs. 1984	1	2	3	4	Full Year
Automotive	− 3.6%	3.5%	1.0%	− 4.2%	− 0.7%
Industrial	− 3.8	− 7.8	− 8.1	− 1.8	− 5.5
Grease	− 4.5	− 3.9	− 6.7	− 11.1	− 6.6
Total	**− 3.7**	**− 1.0**	**− 2.7**	**− 3.4**	**− 2.7**
1984 vs. 1983					
Automotive	15.0%	7.6%	6.0%	8.7%	9.2%
Industrial	13.7	12.0	10.9	0.5	9.2
Grease	28.6	33.1	10.5	1.2	16.7
Total	**14.8**	**9.8**	**7.9**	**5.2**	**9.4**
1983 vs. 1982					
Automotive	2.3%	4.7%	7.1%	11.1%	6.2%
Industrial	− 5.4	2.3	6.6	17.7	4.9
Grease	− 28.6	− 22.7	− 9.9	17.4	− 12.1
Total	**− 1.6**	**3.1**	**6.5**	**6.5**	**5.2**

(a) For the index, the average quarter in 1980 = 100%. The base for the quarterly indexes is 1980 full year sales for the reporting companies divided by four.

Source: National Petroleum Refiners Assn., NPRA Lubricant Sales and Production Statistics, 1985.

Automotive Lubricant Sales



Slow Growth Projected for Lube Oil Demand

Although they may disagree on the precise numbers, most analysts of the lubricant market foresee sluggish growth in demand for automotive engine oils through the 1990s.

The most recent forecast, developed by E. Daniel Boston and H.D. Ballard Jr. of Exxon Chemical Americas for the Spring 1986 meeting of the National Petroleum Refiners Assn., puts the motor oil growth factor at about 0.6% per year over the next decade. It should be noted that earlier forecasts prepared for NPRA by other analysts are consistent with the Boston-Ballard scenario.

Factors underlying this slow growth include such on-going trends as extended drain intervals and smaller vehicle crankcases. Boston and Ballard point out, for example, that engine oil use per 1,000 vehicle miles has fallen from 1.07 gal. in 1965 to about .65 gal. in 1985. Oil change intervals of 7,500 miles are typical in late-model vehicle owners manuals.

Boston and Ballard predict that the new SG grade motor oil, which will supercede current SF grades in 1987, will have 90% of the retail oil market by 1989. Their research shows that when new quality levels are introduced, "there is a rapid switch to the new level." They note that 70% of retail oils were of SF quality by the first year and 92% by the second year.

Multigrading will continue to grow, say the Exxon researchers, with about 75% of retail crankcase oils multigraded in 1985 and a projected 80% multigraded by 1990. They also anticipate that by 1987 "a second tier, higher level of fuel economy oils will be introduced to the market."

Fuel economy and cold weather starting capability are factors encouraging a growing preference for 5W-30 oils in car manufacturer recommendations. However, Boston and Ballard are not certain these oils will swing the buying public's preferences away from 10W-30 and 10W-40 oils, "which are perceived as premium oils." Their demand forecast for 1990 foresees retail sales of 5W-30 oils at a "probable" level of 5% of total multigraded oil sales. But they hedge that forecast by noting that 5W-30 sales could "conceivably be as high as 20%." The table at right shows projected multigrade percentages for 1990, with "probable" and "possible" levels shown.

Ballard and Boston project the growth of transmission and hydraulic oils to be just under 1% per year, slightly higher than the average for automotive oils. For industrial oils, they foresee a growth factor of about 0.8% per year, primarily in the process oil category.

Estimated Demand for Automotive Oils

(Add 000,000 gal.)

Year	SAE J-183 Engine Oils	Other Engine Oils	Transmission & Hydraulic Fluids	Gear Oils	Total Automotive Oils
1995	1,171	43	251	62	1,527
1990	1,135	39	240	58	1,472
1989	1,131	38	238	58	1,465
1988	1,118	38	236	57	1,449
1987	1,117	38	234	56	1,145
1986	1,106	37	232	56	1,431
1985	1,099	37	229	55	1,420
1984	1,086	36	229	55	1,406(a)

(a) Sales reported to NPRA for 1984 amounted to 1,376,000,000 gal.
Source: "A View of Lubricant Demand and Quality into the 1990's," E. Daniel Boston and H.D. Ballard Jr., Exxon Chemical Americas.

Estimated Demand for Industrial Oils

(Add 000,000 gal.)

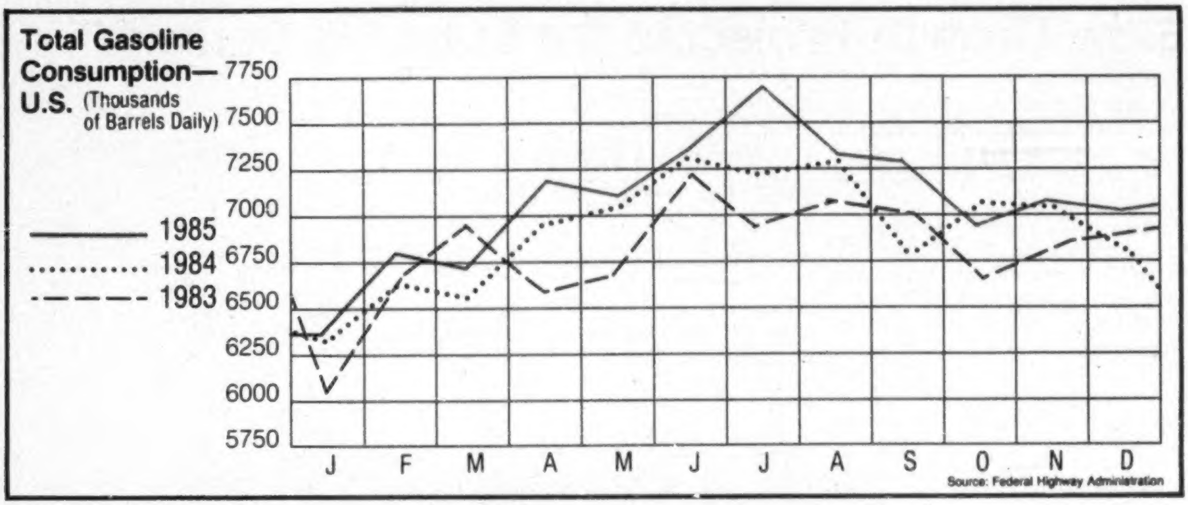
Year	General Industrial Oils	Industrial Crankcase Oils				Metalworking Oils	Process Oils(a)	Total
		Railroad	Marine	Gas Engine	Total			
1995	490	60	47	37	144	180	335	1,149
1990	475	60	45	42	147	175	315	1,112
1989	470	60	45	41	146	175	310	1,101
1988	465	60	44	41	145	175	305	1,090
1987	465	60	44	40	144	170	300	1,079
1986	460	59	43	40	142	170	295	1,067
1985	460	59	43	40	142	170	295	1,067
1984	460	59	42	40	141	170	300	1,071

(a) Excluding aromatic extracts.
Source: E. Daniel Boston and H.D. Ballard, Jr., Exxon.

Motor Oil Viscosity Grade Distribution, Percent

Grade	1982	1983	1984	1990	
				Probable	Possible
5W-30	1%	1%	1%	5%	20%
10W-30	21	19	21	30	25
10W-40	64	65	61	45	35
Other	14	15	17	20	20

Source: E. Daniel Boston and H.D. Ballard Jr., Exxon.



Source: Federal Highway Administration

Gasoline Consumption by States

(includes on-highway and off-highway consumption)

State	1985 Rank	Total Gasoline (a) (Add 000 gal.) 1985	1984	% Chng. '85 vs. '84	Gasohol Included (b) (Add 000 gal.) 1985	1984
Alabama	23	1,881,466	1,905,627	(1.2%)	196,111	34,899
Alaska	49	267,709	248,903	7.5	—	—
Arizona	26	1,561,161	1,489,965	4.8	—	—
Arkansas	33	1,166,202	1,193,067	(2.3)	9,913	28,871
California	1	11,656,251	11,413,578	2.1	228,017	401,837
Colorado	27	1,558,918	1,514,511	2.9	237,553	82,233
Connecticut	28	1,393,470	1,339,766	4.0	16,409	5,421
Delaware	47	326,204	320,247	1.9	—	—
Dist. of Col.	—	161,938	181,199	(10.6)	22	84
Florida	4	5,462,023	5,261,730	3.8	581,364	508,751
Georgia	10	3,148,673	3,053,861	3.1	—	18
Hawaii	45	349,790	371,084	(5.8)	—	—
Idaho	40	463,502	458,332	1.1	21,167	8,067
Illinois	5	4,863,654	4,551,561	6.3	315,579	562,036
Indiana	15	2,575,794	2,521,948	2.1	696,137	587,396
Iowa	29	1,369,839	1,398,211	(2.0)	436,164	457,125
Kansas	31	1,234,185	1,245,202	(0.9)	281,167	273,077
Kentucky	24	1,736,511	1,764,752	(1.6)	556,478	328,238
Louisiana	18	2,132,374	2,166,617	(1.6)	123,597	24,424
Maine	38	548,083	530,799	3.3	—	—
Maryland	20	1,976,290	1,959,267	0.9	720	82
Massachusetts	16	2,388,603	2,340,189	2.1	—	—
Michigan	8	4,086,108	4,042,348	1.1	548,885	577,723
Minnesota	17	2,136,370	2,084,655	2.5	350,169	2,707
Mississippi	32	1,231,066	1,191,027	3.4	—	—
Missouri	13	2,614,238	2,601,207	0.5	—	13,860
Montana	42	441,744	455,738	(3.1)	8,079	10,181
Nebraska	36	777,136	780,071	(0.4)	242,367	208,455
Nevada	39	509.110	504,530	0.9	1,142	—
New Hampshire	41	446,902	434,424	2.9	—	—
New Jersey	9	3,311,078	3,358,178	(1.4)	—	—
New Mexico	35	783,404	764,343	2.5	75,502	63,756
New York	3	6,785,087	4,927,832	37.7	—	—
North Carolina	11	3,092,962	3,042,021	1.7	121,220	34,037
North Dakota	44	385,714	390,514	(1.2)	36,680	5,469
Ohio	6	4,716,398	4,744,494	(0.6)	623,871	495,595
Oklahoma	22	1,890,867	1,877,793	0.7	25,374	23,620
Oregon	30	1,254,668	1,263,213	(0.7)	168	298
Pennsylvania	7	4,429,755	4,425,335	(0.2)	—	—
Rhode Island	48	375,508	369,612	1.6	—	—
South Carolina	25	1,625,365	1,601,942	1.5	644	154
South Dakota	43	387,453	389,407	(0.5)	52,402	41,343
Tennessee	14	2,534,948	2,501,396	1.3	365,020	264,167
Texas	2	8,899,228	8,501,979	4.7	429,495	207,152
Utah	37	755,798	752,734	0.4	6,223	26,358
Vermont	50	252,811	252,093	0.3	—	—
Virginia	12	2,719,453	2,665,515	2.0	349,930	131,618
Washington	21	1,912,436	2,000,333	(4.4)	7,574	9,143
West Virginia	34	801,431	800,672	—	—	—
Wisconsin	19	2,022,990	2,022,610	0.0	15,069	1,962
Wyoming	46	332,978	358,077	(7.0)	281	309
Total U.S.		**109,086,238**	**106,331,239**	**2.6%**	**6,960,943**	**5,420,466**

(a) These totals reflect the gross gal. of gasoline reported for tax purposes by wholesale distributors in each state. The data are taken from state taxation reports. The data include highway and non-highway use, and losses.

(b) These totals show gross gal. of gasohol (ethanol blends) reported by the states. The data are obtained from state taxation reports. In states where gasohol is taxed at the same rate as gasoline, some gasohol gallonage may be commingled with gasoline data. All totals—gasoline and gasohol—are preliminary.

Source: Federal Highway Administration, Monthly Gasoline Reports, 1985.

Gasoline Octanes, U.S. Service Stations

		Regular grade (1)			Premium grade(2)			Unleaded grade		
Year	Season	Rsh.	Mtr.	(R+M)*/2	Rsh.	Mtr.	(R+M)*/2	Rsh.	Mtr.	(R+M)*/2
1984-85	Winter	92.8	85.2	89.1	—	—	—	91.8(a) 96.4(b)	82.9(a) 86.8(b)	87.4(a) 91.6(b)
1984	Summer	92.9	85.0	89.0	—	—	—	91.6(a) 96.5(b)	82.9(a) 86.9(b)	87.3(a) 91.7(b)
1983-84	Winter	92.7	84.9	88.8	—	—	—	91.7(a) 96.1(b)	82.9(a) 86.6(b)	87.3(a) 91.3(b)
1983	Summer	93.1	84.9	89.0	—	—	—	92.0(a) 96.2(b)	82.9(a) 86.5(b)	87.5(a) 91.4(b)
1982-83	Winter	92.9	85.2	89.1	—	—	—	91.7(a) 96.3(b)	82.9(a) 86.7(b)	87.3(a) 91.5(b)
1982	Summer	93.0	85.0	89.0	—	—	—	91.9(a) 96.8(b)	82.8(a) 86.6(b)	87.3(a) 91.7(b)
1981-82	Winter	92.7	85.1	88.9	98.1	87.8	93.0	91.8(a) 96.6(b)	82.9(a) 86.8(b)	87.4(a) 91.7(b)
1981	Summer	92.8	85.1	89.0	—	—	—	91.9(a) 96.3(b)	83.0(a) 86.2(b)	87.4(a) 91.3(b)
1980-81	Winter	92.8	85.4	89.1	97.3	89.2	93.3	91.9(a) 96.1(b)	83.3(a) 86.5(b)	87.6(a) 91.4(b)
1980	Summer	96.2	85.2	88.9	97.0	88.6	92.8	92.1(a) 96.1(b)	83.4(a) 86.4(b)	87.8(a) 91.6(b)
1979-80	Winter	92.5	85.5	89.0	97.2	89.3	93.2	92.1(a) 97.1(b)	83.7(a) 87.0(b)	87.9(a) 92.1(b)
1979	Summer	92.8	85.7	89.3	97.6	89.8	93.7	93.0	84.1	88.6
1978-79	Winter	93.2	85.9	89.6	98.0	90.3	94.2	93.1	84.3	88.7
1978	Summer	93.2	85.7	89.5	98.2	90.4	94.3	93.0	83.9	88.5
1977-78	Winter	93.2	85.7	89.5	98.8	91.0	94.9	92.9	83.9	88.4
1977	Summer	93.2	85.9	89.6	98.7	91.2	95.0	92.9	83.9	88.5
1976-77	Winter	93.2	86.1	89.7	98.8	91.4	95.1	92.6	84.1	88.4

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*Antiknock index.

(1) Below 93.0 octane; (2) 93.0 octane and above.

(a) Unleaded below 90. (b) Unleaded 90 and above.

Source: Motor Gasolines, Winter 1984-85—National Institute for Petroleum and Energy Research, Bartlesville, Okla., July 1985.

Gasoline Octanes, Regional Averages

	Unleaded Octane Number						Leaded Octane Number					
	Index Below 90			Index Above 90			Index Below 93			Index Above 93 (a)		
	Rsch.	Mtr.	(R+M) ÷2	Rsch.	Mtr.	(R+M) ÷2	Rsch.	Mtr.	(R+M) ÷2	Rsch.	Mtr.	(R+M) ÷2
Northeast	92.0	82.5	87.3	97.1	86.9	92.0	93.5	85.4	89.5	—	—	—
Mid-Atlantic Coast	92.1	82.6	87.4	97.3	87.2	92.2	93.2	85.3	89.3	—	—	—
Southeast	91.8	82.9	87.4	97.0	86.9	92.0	92.9	85.6	89.2	—	—	—
Appalachian	91.5	82.9	87.2	96.3	86.9	91.6	92.5	85.7	89.1	—	—	—
Michigan	91.1	83.1	87.1	96.3	86.7	91.5	92.9	85.3	89.1	—	—	—
North Illinois	91.7	83.1	87.4	96.3	86.6	91.5	93.0	85.9	89.5	97.1	88.9	93.0
Central Mississippi	91.9	83.0	87.5	96.3	87.2	91.8	93.1	85.5	89.3	—	—	—
Lower Mississippi	92.0	82.8	87.4	96.8	86.7	91.7	92.8	85.5	89.2	—	—	—
North Plains	91.8	83.2	87.5	95.2	87.4	91.3	92.0	84.3	88.2	—	—	—
Central Plains	91.8	83.6	87.7	95.0	86.2	90.6	93.2	85.5	89.4	—	—	—
South Plains	91.8	82.9	87.4	97.0	86.9	92.0	92.9	85.9	89.4	—	—	—
South Texas	92.0	82.5	87.3	96.7	86.9	91.8	93.4	85.8	89.7	—	—	—
South Mountain States	91.5	82.5	87.1	96.4	86.2	91.4	91.4	84.3	87.9	97.2	88.7	93.0
North Mountain States	90.2	82.6	86.4	95.3	86.5	90.9	91.6	84.3	88.0	—	—	—
Pacific Northwest	91.5	83.1	87.4	96.3	87.4	91.9	92.5	85.1	88.9	—	—	—
North California	93.1	82.8	88.0	97.3	85.7	91.5	93.8	84.6	89.3	—	—	—
South California	92.2	83.2	87.7	96.8	86.7	91.8	93.6	84.4	89.0	—	—	—
Average												
Winter 1984-85	**91.8**	**82.9**	**87.4**	**96.4**	**86.8**	**91.6**	**92.8**	**85.2**	**89.1**	**97.2**	**88.8**	**93.0**
Winter 1983-84	**91.7**	**82.9**	**87.3**	**96.1**	**86.6**	**91.3**	**92.7**	**84.9**	**98.1**	—	—	—

(a) In 1981, DOE began two classifications for leaded gasoline—below 93 octane and above 93 octane; however, nothing has been published in the above 93 octane category since the winter of 1981-82, except for the two samples in this report.

Source: Motor Gasolines, Winter 1984-85, National Institute for Petroleum and Energy Research, Bartlesville, Okla., July 1985.

State Gasoline Consumption by Rank

State	1985 Rank	1984 Rank	(Add 000) 1985 Gallonage (a)
California	1	1	11,656,251
Texas	2	2	8,899,228
New York	3	4	6,785,087
Florida	4	3	5,462,023
Illinois	5	6	4,863,654
Ohio	6	5	4,716,398
Pennsylvania	7	7	4,429,755
Michigan	8	8	4,086,108
New Jersey	9	9	3,311,078
Georgia	10	10	3,148,673
North Carolina	11	11	3,092,962
Virginia	12	12	2,719,453
Missouri	13	13	2,614,238
Tennessee	14	15	2,534,948
Indiana	15	14	2,575,794
Massachusetts	16	16	2,388,603
Minnesota	18	18	2,136,370
Louisiana	17	17	2,132,374
Wisconsin	19	19	2,022,990
Maryland	20	21	1,976,290
Washington	21	20	1,912,436
Oklahoma	22	23	1,890,867
Alabama	23	22	1,881,466
Kentucky	24	24	1,736,511
South Carolina	25	25	1,625,365
Arizona	26	27	1,561,181

(a) Preliminary

Source: Federal Highway Administration, Monthly Gasoline Reports, 1985.

State	1985 Rank	1984 Rank	(Add 000) 1985 Gallonage (a)
Colorado	27	26	1,558,918
Connecticut	28	29	1,393,470
Iowa	29	28	1,369,839
Oregon	30	30	1,254,668
Kansas	31	31	1,234,185
Mississippi	32	33	1,231,066
Arkansas	33	32	1,166,202
West Virginia	34	34	801,431
New Mexico	35	36	783,404
Nebraska	36	35	771,136
Utah	37	37	755,798
Maine	38	38	548,083
Nevada	39	39	509,110
Idaho	40	41	463,502
New Hampshire	41	42	446,902
Montana	42	40	441,744
South Dakota	43	44	387,453
North Dakota	44	43	385,704
Hawaii	45	45	349,790
Wyoming	46	47	332,978
Delaware	47	48	326,204
Rhode Island	48	46	375,508
Alaska	49	50	267,709
Vermont	50	49	252,811
District of Columbia	—	—	161,938

(a) Preliminary

Source: Federal Highway Administration, Monthly Gasoline Reports, 1985.

Unleaded Sales Dominate the Gasoline Market

Mandated in mid-1975 as the required fuel for all new model-year cars from thereon in, unleaded gasolines have gone from literally ground zero to one of absolute dominance of the marketing industry.

In little more than a decade, unleaded gasoline sales represented 65% of all gasoline consumption at the end of 1985, according to Energy Information Administration.

Marketing experts said the upward movement continued in the first half of 1986, with the probability that seven out of every 10 gal. of gasoline now being sold are unleaded grades.

It is believed that by 1990, demand for leaded gasolines will have dwindled to less than 10% of the total requirements.

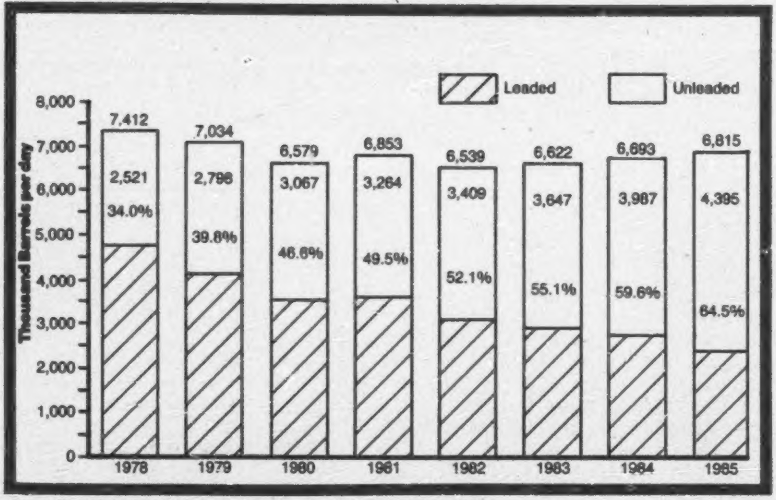
In peak-year 1978, gasoline consumption averaged 7,412,000 b/d, with unleadeds amounting to 34% of the total, or 2,421,000 b/d. Total consumption declined to 6,539,000 b/d in 1982 but has been edging upward since then. In 1985, consumption amounted to 6,815,000 b/d, with 65% of it being either of the two unleaded grades.

There are no hard numbers available on the breakout between sales of unleaded regular and unleaded premium, but market sources believe that the latter accounted for about one-third of the total unleaded sales at the end of the first quarter of this year.

EPA says that most vehicles still using leaded gasoline are pre-1975 models. While these vehicles comprise an estimated 31 million cars and 14 million trucks (28% and 35% of the vehicles in operation, respectively), vehicle scrappage rates increase with the age of the vehicles.

Oak Ridge National Laboratory has estimated a median life of 10.9 years for passenger cars and 12.0 years for light trucks, with about 2% of the passenger cars and 24% of the light trucks surviving for 20 years. The increasing demand for unleaded fuels reflects the replacement of these vehicles in the motor fleet.

Unleaded vs. Leaded Motor Gasoline. 1978–1985



Source: Energy Information Administration, Petroleum Supply Monthly, February 1986.

Gasohol Consumption by States—1984

The following table, prepared by the Federal Highway Administration, contains a variety of caveats, as follows: the table shows gross gallons of gasohol reported by the distributors in each state. However, this total must not be considered a national total. In states where gasohol is taxed at the same rate as gasoline, the gallonage data are not reported separately and is commingled with gasoline data. In other states, however, partial tax exemptions have been legislated but the reporting systems have not yet been converted for separate reporting. In any case, the totals should be considered minimums and not maximums.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	2,833	2,572	3,177	3,022	2,945	2,805	2,452	2,616	2,378	2,728	3,593	3,778	34,899
Alaska	—	—	—	—	—	—	—	—	—	—	—	—	—
Arizona	—	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	1,474	1,175	1,180	1,216	2,006	2,112	3,595	3,328	4,255	3,117	2,765	2,648	28,871
California	30,904	25,334	39,806	47,294	57,430	54,982	28,166	26,642	23,173	20,355	21,652	26,099	401,837
Colorado	1,825	7,913	5,031	5,500	6,000	5,414	6,236	6,100	4,950	5,703	7,699	19,862	82,233
Connecticut	—	—	—	—	—	—	1,953	2,326	1,142	—	—	—	5,421
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	—
Dist. of Col.	12	7	12	13	4	7	—	3	2	3	15	6	84
Florida	34,110	43,879	43,025	38,697	40,284	34,978	48,794	43,873	41,995	45,542	45,726	47,848	508,751
Georgia	9	5	1	1	—	—	—	—	—	—	2	—	18
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	238	407	473	513	448	326	342	571	942	1,146	1,252	1,409	8,067
Illinois	22,031	22,031	34,294	36,745	41,682	54,262	52,082	56,419	46,200	58,215	79,302	58,773	562,036
Indiana	43,881	41,732	43,883	45,613	47,033	51,481	51,281	54,249	52,658	51,252	50,998	53,335	587,396
Iowa	39,114	34,190	39,565	39,284	41,743	39,707	41,227	41,826	33,266	35,749	35,057	36,397	457,125
Kansas	17,433	20,103	23,335	23,972	26,793	26,394	24,808	22,753	20,554	21,902	21,249	23,781	273,077
Kentucky	17,423	16,060	22,318	22,272	30,238	31,723	28,753	33,282	28,391	32,538	32,200	33,040	328,238
Louisiana	—	—	—	—	—	—	295	2,816	3,169	3,237	6,694	8,213	24,424
Maine	—	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	5	6	7	6	9	5	7	8	6	5	7	11	82
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	36,656	45,888	39,274	55,066	50,558	58,436	45,892	50,823	44,058	48,951	53,910	48,211	577,723
Minnesota	273	295	333	425	107	80	517	85	272	100	128	92	2,707
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	1,155	1,155	1,155	1,155	1,155	1,155	1,155	1,155	1,155	1,155	1,155	1,155	13,860
Montana	579	323	937	1,230	847	923	809	1,281	598	776	950	928	10,181
Nebraska	16,170	15,095	15,659	15,809	17,552	18,739	17,639	18,952	17,283	18,297	18,606	18,654	208,455
Nevada	—	—	—	—	—	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	4,178	4,572	11,078	6,916	3,612	1,898	3,108	3,552	5,974	4,383	7,223	7,262	63,756
New York	—	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	361	477	522	639	1,033	1,318	1,495	1,631	1,372	5,607	9,296	10,286	34,037
North Dakota	203	589	111	325	881	535	505	104	938	543	145	590	5,469
Ohio	31,852	30,574	38,399	39,634	44,832	44,926	40,110	44,019	40,935	44,707	45,535	50,072	495,595
Oklahoma	3,322	2,810	2,488	2,738	2,520	974	1,256	1,984	1,805	1,357	952	1,414	23,620
Oregon	35	11	33	27	23	21	31	30	—	42	12	33	298
Pennsylvania	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	8	11	1	29	16	12	13	—	15	14	15	20	154
South Dakota	2,856	2,628	3,246	3,216	3,674	3,591	3,811	4,078	3,153	3,882	3,715	3,493	41,343
Tennessee	17,073	20,077	27,319	28,070	18,197	22,722	25,176	21,662	22,020	11,803	27,148	22,900	264,167
Texas	1,132	2,521	6,643	19,689	18,879	20,151	21,262	18,431	21,460	23,459	26,117	27,408	207,152
Utah	2,740	3,287	4,203	4,605	5,176	5,232	373	18	81	147	178	318	26,358
Vermont	—	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	4,172	3,969	8,215	6,702	9,718	14,572	13,458	15,336	13,791	13,959	13,874	13,852	131,618
Washington	646	610	512	338	1,066	473	1,290	901	958	883	686	780	9,143
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—	—
Wisconsin	105	22	11	21	25	31	126	372	273	359	250	367	1,962
Wyoming	28	17	14	24	18	—	17	26	102	20	22	21	309
Total	**334,836**	**350,345**	**416,260**	**450,806**	**476,504**	**499,985**	**468,034**	**481,252**	**439,324**	**461,936**	**518,128**	**523,056**	**5,420,466**

Source: Federal Highway Administration, Monthly Gasoline Reports, 1985.

Gasohol Consumption by States—1985

This table, prepared by Federal Highway Administration, shows gross gallons of gasohol (ethanol blends) reported by the various states. The data are obtained from state taxation reports. In states where gasohol is taxed at the same rate as gasoline, some gasohol gallonage may be commingled with gasoline data. At any rate, this is a preliminary report and upward revisions may be expected on the basis of later data. This report indicates there was a 25% increase in gasohol use in 1985.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	7,122	7,716	10,334	12,317	16,482	17,826	19,717	20,364	19,014	21,059	21,278	22,882	196,111
Alaska	—	—	—	—	—	—	—	—	—	—	—	—	—
Arizona	—	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	2,096	1,422	1,179	3,188	2,028	—	—	—	—	—	—	—	9,913
California	28,329	27,935	32,930	29,927	27,148	13,140	9,955	9,414	10,234	13,339	13,465	12,201	228,017
Colorado	24,411	19,005	22,838	23,457	27,901	22,728	12,337	14,418	11,920	19,428	19,853	19,257	237,553
Connecticut	—	—	—	852	1,854	1,918	2,213	2,269	1,947	1,988	2,055	1,313	16,409
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	—
Dist. of Col.	—	—	3	2	1	7	—	—	—	—	—	—	13
Florida	49,377	49,133	53,928	55,420	57,230	52,454	50,182	49,668	38,953	39,666	39,169	46,184	581,364
Georgia	—	—	—	—	—	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	1,276	1,438	1,208	1,184	1,345	1,889	2,464	2,553	2,139	1,557	1,696	2,418	21,167
Illinois	55,415	51,086	58,428	69,877	80,773	—	—	—	—	—	—	—	315,579
Indiana	52,296	49,235	56,357	58,455	63,468	56,638	60,519	62,430	56,002	69,675	56,557	54,505	696,137
Iowa	33,602	33,877	34,117	35,947	38,884	35,886	38,902	36,503	35,745	35,420	36,985	40,296	436,164
Kansas	22,284	20,457	22,202	23,283	22,968	24,962	25,162	25,579	22,670	24,289	23,391	24,370	281,617
Kentucky	25,659	40,793	40,407	43,133	44,128	47,107	52,685	46,725	54,174	51,420	56,932	53,315	556,478
Louisiana	6,493	2,068	5,682	5,874	3,690	7,179	15,680	14,481	22,927	12,542	15,676	11,305	123,597
Maine	—	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	6	5	15	70	76	64	83	75	63	59	133	71	720
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	46,481	40,979	42,723	42,394	45,807	43,781	41,184	55,454	46,578	51,595	41,359	50,550	548,885
Minnesota	2,623	3,401	3,986	8,264	10,411	14,230	33,996	45,910	46,387	48,959	68,448	63,554	350,169
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	—	—	—	—	—	—	—	—	—	—	—	—	—
Montana	615	1,107	1,022	946	678	780	443	713	548	276	577	364	8,079
Nebraska	18,281	17,413	19,710	19,926	22,235	22,160	20,388	21,392	19,848	20,254	20,420	20,340	242,367
Nevada	—	—	—	—	140	154	113	185	26	173	157	194	1,142
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	6,627	6,198	6,927	6,430	7,407	7,450	6,937	6,042	5,496	5,781	5,076	5,131	75,502
New York	—	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	12,911	14,872	16,408	26,210	22,680	26,435	1,704	—	—	—	—	—	121,220
North Dakota	780	1,565	773	947	685	2,406	2,834	2,201	6,309	1,854	9,533	6,783	36,680
Ohio	46,883	42,352	51,728	53,612	57,262	58,681	64,001	64,591	57,784	63,906	63,071	—	623,871
Oklahoma	1,343	1,577	1,413	1,706	910	912	1,858	1,669	2,492	5,417	4,220	1,857	25,374
Oregon	23	—	22	22	23	78	—	—	—	—	—	—	168
Pennsylvania	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	18	6	12	16	15	—	—	—	43	—	534	—	644
South Dakota	3,334	2,902	3,406	3,813	4,332	4,487	5,016	5,287	4,540	5,585	4,593	5,107	52,402
Tennessee	26,013	23,889	28,942	27,802	26,561	26,994	36,475	25,461	27,093	22,284	58,309	35,197	365,020
Texas	34,081	34,940	38,707	40,572	44,045	42,587	34,846	35,780	32,031	29,895	30,241	31,770	429,495
Utah	506	393	596	364	505	433	623	549	530	629	496	599	6,223
Vermont	—	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	12,568	14,687	19,998	24,248	25,757	32,667	30,619	37,249	33,999	37,854	37,913	42,371	349,930
Washington	742	608	783	525	1,270	263	628	649	567	567	658	314	7,574
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—	—
Wisconsin	325	296	313	970	1,315	1,233	1,367	2,583	1,048	1,692	1,629	2,298	15,069
Wyoming	23	21	18	20	22	76	30	14	17	13	12	18	281
U.S. Total	**522,543**	**511,376**	**577,115**	**621,773**	**660,036**	**567,605**	**572,964**	**590,211**	**561,127**	**587,176**	**634,436**	**554,581**	**6,960,943**
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total	**522,543**	**511,376**	**577,115**	**621,773**	**660,036**	**567,605**	**572,964**	**590,211**	**561,127**	**587,176**	**634,436**	**554,581**	**6,960,943**

Source: Federal Highway Administration, Monthly Gasoline Reports, 1985.

Diesel Sales for Highway Use 1984

Diesel sales for motor vehicles—passenger cars and trucks—rose 10.4% in 1984, up significantly over 1983's increase of 7.2%. Sales amounted to 16.8 billion gal. in 1984, compared with $15.2 billion gal. the preceding year.

Off-highway sales also rose 8.5% even though a score of states registered declines in 1984. These sales amounted to 1.7 billion gal., versus 1.5 billion gal. in 1983. Off-highway consumption is primarily construction equipment, farm and conveniences.

(Add 000 gal.)

	On-Highway			Off-Highway		
	1984	1983	% Change	1984	1983	% Change
PAD District 1						
New England States						
Connecticut	183,583	134,526	36.5%	5,442	10,038	(45.8%)
Maine	116,662	72,702	60.5	5,732	9,702	(40.9)
Massachusetts	252,545	225,876	11.8	13,854	12,348	12.2
New Hampshire	40,593	33,600	20.8	4,775	6,804	(29.8)
Rhode Island	32,809	30,282	8.3	4,049	1,512	167.8
Vermont	36,274	30,324	19.6	3,180	6,888	(53.8)
Central Atlantic States						
Delaware	46,602	43,008	8.4	3,324	5,334	(37.7)
District of Columbia	21,393	19,950	7.2	435	378	15.1
Maryland	208,168	193,620	7.5	23,629	13,020	81.5
New Jersey	436,162	366,114	19.1	20,714	20,748	—
New York	439,452	375,816	16.9	44,514	24,738	79.9
Pennsylvania	734,690	674,016	9.0	67,066	85,302	(21.4)
Lower Atlantic States						
Florida	664,162	826,602	(19.7)	50,191	12,390	305.0
Georgia	633,818	559,482	13.3	29,836	7,644	290.3
North Carolina	501,663	456,498	9.9	21,231	11,802	79.9
South Carolina	291,490	260,946	10.5	13,990	7,854	78.1
Virginia	408,060	364,938	11.8	36,175	22,848	58.3
West Virginia	123,877	107,058	15.7	28,228	9,912	184.8
Total	**5,172,003**	**4,775,232**	**8.3**	**376,637**	**269,262**	**39.9**
PAD District 2						
Illinois	574,188	560,448	2.3	57,274	33,222	72.4
Indiana	692,209	593,586	16.6	21,140	15,498	36.4
Iowa	313,635	285,600	9.8	13,427	18,900	(30.0)
Kansas	252,239	221,172	14.0	13,639	10,626	28.4
Kentucky	335,968	267,162	25.8	60,273	33,306	81.0
Michigan	425,802	369,726	15.2	26,172	14,280	83.3
Minnesota	284,668	283,626	—	17,616	16,884	4.3
Missouri	438,179	386,358	38.6	22,600	47,292	52.2
Nebraska	181,983	172,662	5.4	13,540	8,820	53.5
North Dakota	90,792	88,116	3.0	6,356	10,206	(37.7)
Ohio	810,535	741,678	9.3	34,486	129,570	(73.4)
Oklahoma	401,738	348,894	15.1	51,427	32,004	60.7
South Dakota	95,895	83,412	15.0	4,074	4,032	1.0
Tennessee	503,273	444,654	13.2	27,822	12,684	119.3
Wisconsin	342,908	323,862	5.9	18,333	18,186	—
Total	**5,744,012**	**5,170,956**	**11.0**	**390,178**	**405,510**	**(3.8)**
PAD District 3						
Alabama	345,705	312,900	10.5	58,889	30,828	91.0
Arkansas	285,945	244,440	17.0	27,794	38,472	(27.8)
Louisiana	362,139	330,960	9.4	80,101	112,224	(28.6)
Mississippi	268,572	236,292	13.7	58,427	30,408	92.1
New Mexico	168,017	168,840	—	22,515	21,462	5.4
Texas	1,514,092	1,361,094	11.2	233,404	315,126	(25.9)
Total	**2,944,470**	**2,654,526**	**10.9**	**481,230**	**548,520**	**(12.3)**
PAD District 4						
Colorado	202,150	193,074	4.7	37,327	26,376	41.5
Idaho	93,509	62,958	48.5	10,191	10,332	(1.3)
Montana	113,853	101,850	11.8	13,829	6,762	104.5
Utah	130,617	110,964	17.7	17,630	23,730	(25.7)
Wyoming	104,249	106,764	(2.4)	46,263	25,620	80.6
Total	**644,378**	**575,610**	**11.9**	**125,240**	**92,820**	**34.9**
PAD District 5						
Alaska	96,646	49,308	91.9	8,786	17,472	(49.7)
Arizona	228,929	202,272	13.2	28,642	11,382	(151.7)
California	1,399,258	1,209,768	15.7	151,731	124,782	21.6
Hawaii	17,548	21,630	(18.9)	2,440	6,342	(61.5)
Nevada	77,184	85,806	(10.0)	38,103	7,308	421.4
Oregon	195,543	229,698	(14.9)	25,786	14,154	82.2
Washington	275,452	240,786	14.4	45,089	45,402	—
Total	**2,292,560**	**2,039,268**	**12.4**	**300,577**	**226,842**	**32.5**
U.S. Total	**16,797,423**	**15,215,592**	**10.4**	**1,673,591**	**1,542,954**	**8.5**

Source: Energy Information Administration, Petroleum Marketing Monthly, July 1985 and *NPN Factbook* 1985 for 1983 data.

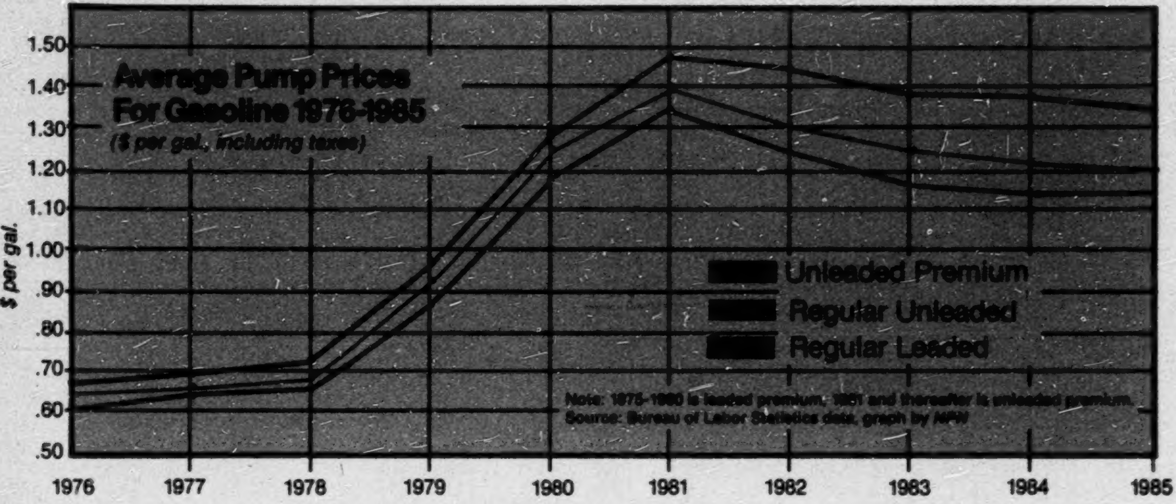
Diesel Fuel Consumption by States—1985

The table below, prepared by the Federal Highway Administration, shows gross gal. of special fuels, but this is primarily diesel fuel. Included are small amounts of liquefied petroleum gas. In most cases, FHA says, the data reflect retail sales, although few states tax special fuels at the wholesale level. This is a preliminary report for 1985.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	30,165	28,340	26,530	40,653	27,881	27,041	38,454	27,443	27,197	33,010	33,312	25,260	365,286
Alaska	6,734	5,866	8,410	12,236	8,862	10,143	9,723	13,782	24,588	6,140	2,045	632	109,161
Arizona	25,675	17,062	23,878	21,351	20,424	29,798	22,279	18,170	27,684	19,762	22,618	24,311	273,012
Arkansas	20,813	23,269	22,961	29,739	26,285	26,272	23,827	21,559	30,569	17,509	29,557	24,706	297,066
California	109,207	109,207	109,207	114,982	114,982	114,982	121,030	121,030	121,030	126,678	126,678	126,679	1,415,692
Colorado	12,761	15,322	17,669	15,686	15,326	20,567	17,959	18,618	18,868	16,185	15,144	19,129	203,234
Connecticut	15,715	15,397	14,479	13,142	15,713	13,423	16,260	19,207	15,199	18,878	15,699	14,364	187,476
Delaware	5,044	3,578	3,400	4,983	5,952	3,302	5,630	4,151	2,429	6,026	4,253	2,811	51,559
Dist. of Col.	1,794	1,429	2,319	1,949	1,511	1,984	1,977	1,932	1,775	2,015	1,755	573	21,013
Florida	60,980	59,412	62,627	63,432	61,490	56,591	54,581	56,734	54,442	60,308	58,893	64,844	714,334
Georgia	57,601	51,360	61,030	62,806	58,447	51,385	56,838	57,704	52,780	63,420	53,514	50,256	677,141
Hawaii	1,669	1,063	1,699	1,833	2,091	1,000	1,674	1,723	1,549	1,959	—	—	16,260
Idaho	8,940	14,824	1,302	10,032	11,385	1,197	8,532	15,411	1,120	13,334	12,224	737	99,038
Illinois	43,738	29,161	38,945	66,112	52,236	49,705	56,333	49,303	49,515	61,196	53,707	54,673	604,624
Indiana	73,716	62,810	47,120	55,165	94,016	60,609	45,309	70,524	39,457	62,049	50,890	43,919	705,584
Iowa	20,867	22,145	30,364	25,855	23,781	32,543	16,226	23,980	33,559	18,958	24,873	32,804	305,955
Kansas	22,122	19,936	20,167	28,017	25,370	25,031	25,196	23,377	23,443	15,244	19,921	19,982	267,806
Kentucky	26,793	21,680	28,261	28,042	26,663	27,073	27,828	27,633	29,483	27,852	30,087	28,806	330,201
Louisiana	28,062	22,386	32,320	30,732	22,331	32,964	29,086	23,034	32,130	16,007	25,630	38,092	332,774
Maine	11,181	11,613	9,202	9,595	7,861	8,098	11,352	10,937	12,969	12,555	10,330	12,835	128,546
Maryland	16,523	17,504	18,153	18,720	20,310	18,165	24,970	20,537	22,023	24,191	20,717	21,149	242,962
Massachusetts	20,859	17,033	21,774	21,931	19,909	23,100	19,097	15,367	25,963	18,923	19,562	22,622	246,140
Michigan	31,713	27,168	49,140	34,634	31,131	50,743	32,585	32,864	53,316	35,481	29,929	54,162	462,866
Minnesota	22,192	21,701	23,760	21,781	23,941	26,159	24,098	25,827	28,161	22,399	29,278	25,664	294,961
Mississippi	18,685	26,460	18,327	36,073	19,557	22,477	30,172	15,831	34,312	30,300	18,805	24,249	295,248
Missouri	40,462	29,021	38,253	44,453	30,465	42,613	32,901	34,797	44,880	40,120	35,903	43,359	457,227
Montana	8,754	5,864	8,609	11,335	6,630	18,661	2,592	6,569	11,043	11,748	7,322	9,916	109,043
Nebraska	13,056	15,214	17,110	13,528	17,155	17,826	12,974	16,887	18,233	14,891	16,580	16,767	190,221
Nevada	1,615	13,439	8,671	4,880	17,178	1,286	4,904	18,929	1,348	4,504	16,738	1,183	94,675
New Hampshire	3,589	318	5,346	3,561	266	5,870	6,123	945	6,377	4,850	804	5,052	43,101
New Jersey	36,816	34,477	37,222	37,523	40,820	36,472	37,074	39,476	39,218	35,637	37,511	36,000	448,246
New Mexico	41,504	3,207	900	31,909	11,721	1,055	28,823	14,502	1,659	38,431	6,273	1,371	181,355
New York	34,727	40,014	35,704	36,145	79,539	37,480	34,238	43,760	36,386	39,726	75,660	36,176	529,555
North Carolina	24,225	48,494	41,624	42,148	47,903	51,493	38,016	42,914	52,271	24,837	53,902	55,193	523,020
North Dakota	5,496	8,118	3,986	10,622	3,903	10,901	9,277	4,251	11,409	6,822	11,601	10,155	96,541
Ohio	71,314	64,175	72,274	72,074	76,968	83,957	62,257	65,991	65,205	84,703	66,075	—	784,993
Oklahoma	27,477	29,519	37,866	31,705	29,699	40,740	30,438	30,104	39,915	29,879	28,970	36,607	392,919
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	64,099	60,357	67,588	65,579	67,125	64,414	64,505	67,431	65,604	72,206	—	—	658,908
Rhode Island	2,290	2,290	2,290	563	563	563	1,152	1,152	1,152	—	—	—	12,015
South Carolina	25,488	19,302	19,472	34,838	25,445	32,397	20,700	22,054	22,656	24,585	18,971	—	265,908
South Dakota	7,464	6,921	7,256	7,487	7,822	7,637	7,940	8,059	8,111	9,326	9,016	11,366	98,405
Tennessee	30,978	35,061	51,628	34,586	40,705	58,549	44,574	31,111	62,706	45,217	30,721	51,620	517,456
Texas	110,718	119,139	140,230	128,127	131,047	149,026	124,090	133,531	148,609	133,639	124,077	139,286	1,582,119
Utah	7,616	18,752	7,550	4,901	19,629	9,760	3,956	21,097	5,081	10,033	21,621	5,099	135,095
Vermont	1,877	6,017	1,748	1,786	5,087	3,116	1,897	5,242	2,048	3,175	4,983	2,552	39,528
Virginia	33,803	34,258	35,635	38,401	35,274	41,203	37,056	41,967	34,356	41,963	34,877	37,655	446,448
Washington	20,115	24,971	18,378	26,332	17,625	24,995	26,256	18,666	38,412	14,598	33,631	28,684	292,863
West Virginia	7,244	8,935	9,175	12,618	13,545	8,924	13,710	10,808	8,717	13,544	7,510	10,039	124,769
Wisconsin	28,213	24,462	29,662	26,298	28,684	34,334	27,868	27,657	37,193	31,510	25,630	35,380	356,891
Wyoming	8,741	8,657	9,732	8,360	12,239	11,420	10,760	11,631	10,105	10,026	8,978	7,282	117,931
Total	**1,351,230**	**1,306,708**	**1,400,953**	**1,499,240**	**1,505,112**	**1,529,042**	**1,405,097**	**1,436,209**	**1,536,255**	**1,476,349**	**1,386,775**	**1,314,201**	**17,147,171**

Source: Federal Highway Administration, Monthly Gasoline Reports, 1985.



Retail Gasoline Prices for Selected Areas—1979-1985

(In $ per gal., including federal, state and local taxes, and representative of full service, self-service and mini-service. Although single-city identifications are used, each is actually a Standard Metropolitan Statistical Area or a Standard Consolidated Area as defined by the Office of Management and Budget and normally used by the Bureau of Labor Statistics, Census Bureau, etc.)

	1985		1984		1983		1982		1981		1980		1979	
Area	**Lead**	**Unld.**	**Lead**	**Unld.**	**Lead**	**Unld.**	**Lead**	**Unld.**	**Lead**	**Unld.**	**Lead**	**Unld.**		
U.S. City Average (a)	$1.12	$1.20	$1.137	$1.212	$1.157	$1.241	$1.222	$1.296	$1.311	$1.378	$1.191	$1.245	$.857	$.903
Anchorage, Alaska	1.18	1.24	1.204	1.294	1.253	1.339	1.380	1.446	1.408	1.465	1.241	1.275	.921	.952
Atlanta, Ga.	1.09	1.20	1.110	1.225	1.143	1.248	1.234	1.319	1.328	1.397	1.197	1.251	.843	.890
Baltimore, Md.	1.09	1.16	1.092	1.164	1.244	1.296	1.288	1.335	1.334	1.389	1.204	1.251	.844	.891
Boston, Mass.	1.08	1.17	1.078	1.175	1.155	1.225	1.234	1.283	1.337	1.391	1.199	1.241	.857	.899
Buffalo, N.Y.	1.15	1.20	1.173	1.249	1.222	1.288	1.248	1.306	1.336	1.394	1.235	1.280	.899	.948
Chicago, Ill.	1.18	1.26	1.211	1.284	1.223	1.298	1.264	1.321	1.344	1.410	1.246	1.304	.925	.979
Cincinnati, Ohio	1.09	1.15	1.153	1.218	1.187	1.257	1.217	1.293	1.275	1.345	1.154	1.206	.842	.882
Cleveland, Ohio	1.09	1.18	1.130	1.214	1.175	1.248	1.269	1.327	1.304	1.385	1.160	1.203	.839	.884
Dallas-Ft. Worth, Texas	1.10	1.14	1.072	1.163	1.081	1.158	1.140	1.209	1.245	1.307	1.132	1.186	.789	.833
Denver-Boulder, Colo.	1.06	1.16	1.049	1.153	1.091	1.197	1.197	1.273	1.259	1.330	1.150	1.217	.838	.886
Detroit, Mich.	1.17	1.26	1.236	1.276	1.227	1.280	1.247	1.304	1.335	1.395	1.242	1.303	.891	.947
Honolulu, Hawaii	1.27	1.40	1.366	1.443	1.400	1.462	1.472	1.542	1.409	1.567	1.298	1.355	.937	.976
Houston, Texas	1.02	1.11	1.015	1.116	1.040	1.132	1.143	1.212	1.261	1.313	1.139	1.183	.794	.835
Kansas City, Mo.-Kans.	1.04	1.12	1.082	1.142	1.155	1.226	1.195	1.262	1.237	1.298	1.137	1.190	.843	.886
Los Angeles, Calif.	1.08	1.19	1.102	1.206	1.166	1.215	1.232	1.316	1.337	1.409	1.213	1.271	.892	.943
Miami, Fla.	1.12	1.21	1.126	1.215	1.207	1.326	1.257	1.364	1.319	1.369	1.166	1.235	.841	.892
Milwaukee, Wis.	1.13	1.20	1.147	1.202	1.190	1.224	1.245	1.266	1.273	1.329	1.139	1.198	.819	.864
Minneapolis, St. Paul, Minn.	1.17	1.25	1.171	1.223	1.211	1.284	1.253	1.328	1.294	1.360	1.175	1.231	.860	.901
New York, N.Y.	1.11	1.19	1.116	1.189	1.181	1.257	1.249	1.319	1.355	1.413	1.241	1.286	.882	.927
NE Pennsylvania	1.15	1.23	1.137	1.204	1.157	1.208	1.197	1.242	1.306	1.353	1.178	1.218	.837	.879
Philadelphia, Pa.	1.11	1.16	1.141	1.213	1.149	1.210	1.188	1.255	1.309	1.365	1.192	1.233	.855	.904
Pittsburgh, Pa.	1.15	1.22	1.150	1.238	1.147	1.233	1.234	1.312	1.356	1.409	1.205	1.242	.857	.893
Portland, Ore.	1.12	1.20	1.116	1.222	1.121	1.230	1.257	1.337	1.317	1.381	1.193	1.226	.870	.907
St. Louis, Mo.-Ill.	1.06	1.14	1.086	1.142	1.111	1.164	1.151	1.213	1.230	1.299	1.145	1.208	.851	.897
San Diego, Calif.	1.12	1.25	1.162	1.212	1.157	1.253	1.240	1.339	1.323	1.408	1.215	1.280	.881	.932
San Fran.-Oakland, Calif.	1.14	1.25	1.156	1.302	1.154	1.290	1.260	1.353	1.355	1.436	1.243	1.310	.899	.961
Seattle-Everett, Wash.	1.15	1.22	1.178	1.239	1.145	1.182	1.227	1.271	1.335	1.401	1.211	1.253	.877	.917
Washington, DC	1.15	1.26	1.203	1.269	1.232	1.288	1.256	1.304	1.334	1.393	1.224	1.276	.853	.906
Region (b)														
Northeast	1.121	1.198	1.142	1.204	1.181	1.248	1.238	1.298	1.344	1.396	1.220	1.260	.870	.913
North Central	1.130	1.215	1.156	1.233	1.191	1.261	1.233	1.298	1.303	1.370	1.183	1.244	.861	.910
South	1.099	1.171	1.105	1.192	1.132	1.217	1.196	1.272	1.293	1.360	1.172	1.223	.831	.863
West	1.113	1.201	1.139	1.220	1.132	1.238	1.233	1.325	1.323	1.405	1.201	1.267	.879	.936

(a) The grades are regular in both cases.
(b) Regions are the four U.S. Census Bureau regions.
Source: Bureau of Labor Statistics, Department of Commerce; 1985 data averaged by *NPN*.

'85 Retail Gasoline Prices—Selected Areas

(In $ per gal., including appropriate federal, state and local taxes, and representative of full-service, self-service and mini-service pumps and stations. Although single-city identifications are used in the table below, each is actually a Standard Metropolitan Statistical Area or a Standard Consolidated Area as defined by the Office of Management and Budget and normally used by the Bureau of Labor Statistics, Census Bureau, etc.)

Gasoline—All Types

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. City Average	$1.145	$1.128	$1.155	$1.199	$1.223	$1.233	$1.233	$1.222	$1.209	$1.198	$1.201	$1.203	$1.196
Anchorage, Alaska	1.237	1.222	1.216	1.212	1.241	1.253	1.260	1.260	1.265	1.104	1.180	1.190	1.220
Atlanta, Ga.	1.127	1.113	1.143	1.190	1.212	1.216	1.236	1.229	1.218	1.209	1.189	1.183	1.189
Baltimore, Md.	1.141	1.128	1.147	1.172	1.198	1.205	1.211	1.208	1.202	1.198	1.205	1.206	1.186
Boston, Mass.	1.147	1.130	1.142	1.161	1.190	1.208	1.218	1.219	1.211	1.206	1.213	1.216	1.188
Buffalo, N.Y.	1.169	1.152	1.177	1.177	1.204	1.220	1.226	1.226	1.218	1.214	1.221	1.227	1.203
Chicago, Ill.	1.198	1.186	1.219	1.237	1.276	1.284	1.299	1.293	1.275	1.255	1.282	1.280	1.257
Cincinnati, Ohio	1.087	1.083	1.123	1.176	1.189	1.184	1.191	1.178	1.141	1.129	1.171	1.167	1.152
Cleveland, Ohio	1.130	1.112	1.147	1.219	1.227	1.230	1.232	1.216	1.187	1.176	1.211	1.215	1.192
Dallas-Fort Worth, Texas	1.135	1.116	1.117	1.150	1.192	1.201	1.209	1.206	1.203	1.196	1.121	1.117	1.164
Denver-Boulder, Colo.	.999	.968	1.072	1.143	1.165	1.168	1.173	1.185	1.177	1.170	1.131	1.094	1.120
Detroit, Mich.	1.170	1.183	1.223	1.252	1.267	1.283	1.300	1.292	1.270	1.244	1.255	1.277	1.251
Honolulu, Hawaii	1.377	1.362	1.358	1.353	1.362	1.386	1.420	1.426	1.422	1.421	1.413	1.406	1.392
Houston, Texas	1.067	1.040	1.061	1.109	1.137	1.145	1.144	1.137	1.122	1.101	1.106	1.111	1.107
Kansas City, Mo.-Kan.	1.020	.979	1.031	1.107	1.136	1.159	1.166	1.162	1.149	1.109	1.126	1.116	1.105
Los Angeles, Calif.	1.151	1.135	1.182	1.252	1.272	1.266	1.239	1.187	1.164	1.160	1.145	1.175	1.194
Miami, Fla.	1.192	1.150	1.175	1.239	1.256	1.259	1.259	1.256	1.246	1.237	1.237	1.241	1.226
Milwaukee, Wis.	1.117	1.097	1.149	1.198	1.221	1.235	1.235	1.226	1.187	1.168	1.204	1.200	1.187
Minneapolis-St. Paul, Minn.	1.141	1.112	1.136	1.201	1.238	1.293	1.309	1.309	1.279	1.233	1.239	1.239	1.227
New York, N.Y.	1.168	1.162	1.174	1.198	1.216	1.239	1.244	1.241	1.231	1.232	1.240	1.247	1.216
Northeast Pennsylvania	1.161	1.150	1.180	1.204	1.221	1.227	1.235	1.235	1.229	1.225	1.233	1.233	1.212
Philadelphia, Pa.	1.152	1.145	1.162	1.146	1.174	1.189	1.199	1.195	1.193	1.196	1.202	1.201	1.180
Pittsburgh, Pa.	1.187	1.181	1.193	1.218	1.241	1.259	1.260	1.262	1.257	1.246	1.206	1.208	1.227
Portland, Ore.	1.180	1.159	1.149	1.164	1.203	1.233	1.232	1.209	1.197	1.195	1.188	1.138	1.187
St. Louis, Mo.	1.056	1.030	1.058	1.134	1.149	1.156	1.163	1.201	1.172	1.149	1.170	1.170	1.134
San Diego, Calif.	1.186	1.162	1.209	1.288	1.309	1.310	1.283	1.234	1.216	1.212	1.205	1.206	1.235
San Francisco, Calif.	1.225	1.209	1.233	1.268	1.304	1.307	1.297	1.259	1.238	1.235	1.219	1.221	1.251
Seattle-Everett, Wash.	1.227	1.203	1.184	1.186	1.231	1.253	1.247	1.227	1.208	1.203	1.187	1.195	1.213
Washington, D.C.	1.233	1.219	1.235	1.268	1.294	1.298	1.300	1.295	1.290	1.283	1.284	1.264	1.272

Gasoline-Leaded Regular

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. City Average	$1.060	$1.041	$1.071	$1.119	$1.144	$1.153	$1.154	$1.143	$1.129	$1.117	$1.123	$1.123	$1.120
Anchorage, Alaska	1.182	1.166	1.160	1.159	1.195	1.206	1.213	1.214	1.220	1.141	1.148	1.151	1.180
Atlanta, Ga.	1.029	1.016	1.049	1.092	1.117	1.117	1.146	1.139	1.126	1.121	1.090	1.082	1.094
Baltimore, Md.	1.043	1.027	1.048	1.075	1.099	1.109	1.123	1.120	1.114	1.110	1.116	1.119	1.092
Boston, Mass.	1.041	1.018	1.030	1.052	1.080	1.099	1.116	1.118	1.108	1.101	1.108	1.110	1.082
Buffalo, N.Y.	1.112	1.093	1.120	1.115	1.143	1.157	1.172	1.171	1.161	1.157	1.166	1.173	1.145
Chicago, Ill.	1.109	1.094	1.134	1.167	1.191	1.202	1.219	1.212	1.198	1.177	1.204	1.203	1.176
Cincinnati, Ohio	1.033	1.026	1.062	1.113	1.125	1.121	1.126	1.111	1.080	1.067	1.106	1.104	1.091
Cleveland, Ohio	1.012	.999	1.035	1.113	1.114	1.118	1.124	1.107	1.073	1.065	1.102	1.173	1.086
Dallas-Ft. Worth, Texas	1.074	1.052	1.052	1.085	1.136	1.144	1.134	1.130	1.146	1.139	1.057	1.055	1.100
Denver-Boulder, Colo.	.925	.900	1.005	1.080	1.101	1.104	1.107	1.122	1.116	1.108	1.071	1.033	1.056
Detroit, Mich.	1.087	1.106	1.147	1.176	1.188	1.205	1.224	1.219	1.193	1.161	1.175	1.197	1.173
Honolulu, Hawaii	1.256	1.246	1.241	1.230	1.236	1.269	1.301	1.311	1.304	1.301	1.301	1.295	1.274
Houston, Texas	.979	.951	.972	1.029	1.058	1.062	1.063	1.054	1.039	1.020	1.022	1.031	1.023
Kansas City, Mo.-Kan.	.959	.915	.974	1.051	1.078	1.100	1.105	1.100	1.088	1.043	1.063	1.052	1.044
Los Angeles, Calif.	1.048	1.033	1.078	1.147	1.106	1.138	1.130	1.078	1.054	1.052	1.035	1.072	1.081
Miami, Fla.	1.050	1.035	1.063	1.109	1.140	1.145	1.152	1.148	1.137	1.131	1.132	1.138	1.115
Milwaukee, Wis.	1.057	1.035	1.090	1.138	1.160	1.178	1.177	1.170	1.140	1.110	1.148	1.144	1.129
Minneapolis-St. Paul, Minn.	1.092	1.082	1.084	1.148	1.186	1.238	1.255	1.256	1.225	1.177	1.183	1.184	1.174
New York, N.Y.	1.060	1.055	1.067	1.098	1.106	1.138	1.147	1.146	1.135	1.136	1.141	1.147	1.114
Northeast Pennsylvania	1.092	1.090	1.106	1.129	1.147	1.239	1.165	1.165	1.161	1.157	1.164	1.166	1.149
Philadelphia, Pa.	1.075	1.068	1.084	1.081	1.106	1.122	1.135	1.135	1.135	1.137	1.141	1.136	1.113
Pittsburgh, Pa.	1.104	1.095	1.111	1.139	1.161	1.173	1.183	1.185	1.180	1.167	1.145	1.146	1.149
Portland, Ore.	1.113	1.091	1.080	1.097	1.138	1.162	1.159	1.134	1.120	1.110	1.107	1.059	1.115
St. Louis, Mo.-Ill.	.989	.967	.995	1.077	1.088	1.094	1.022	1.122	1.090	1.063	1.088	1.089	1.057
San Diego, Calif.	1.073	1.039	1.089	1.178	1.200	1.202	1.174	1.114	1.095	1.093	1.089	1.086	1.119
San Francisco, Calif.	1.112	1.097	1.121	1.138	1.196	1.196	1.191	1.147	1.125	1.122	1.111	1.113	1.139
Seattle-Everett, Wash.	1.169	1.144	1.122	1.125	1.171	1.196	1.188	1.167	1.145	1.142	1.126	1.132	1.152
Washington, D.C.	1.107	1.087	1.106	1.142	1.171	1.177	1.180	1.173	1.168	1.163	1.168	1.129	1.148

Source: Bureau of Labor Statistics, Department of Commerce, Consumer and Energy Prices, 1985.

by Month and Grade

Gasoline-Unleaded Regular

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. City Average	$1.148	$1.131	$1.159	$1.205	$1.231	$1.241	$1.242	$1.229	$1.216	$1.204	$1.207	$1.208	$1.202
Anchorage, Alaska	1.245	1.233	1.227	1.225	1.250	1.261	1.269	1.271	1.274	1.192	1.197	1.200	1.237
Atlanta, Ga.	1.130	1.113	1.147	1.199	1.223	1.227	1.244	1.231	1.222	1.210	1.211	1.204	1.197
Baltimore, Md.	1.114	1.101	1.122	1.152	1.179	1.186	1.190	1.187	1.181	1.176	1.181	1.186	1.163
Boston, Mass.	1.124	1.107	1.121	1.144	1.176	1.195	1.207	1.205	1.197	1.192	1.170	1.203	1.170
Buffalo, N.Y.	1.177	1.160	1.184	1.180	1.211	1.227	1.232	1.230	1.222	1.216	1.224	1.123	1.198
Chicago, Ill.	1.197	1.189	1.219	1.261	1.279	1.291	1.301	1.296	1.270	1.240	1.273	1.271	1.257
Cincinnati, Ohio	1.082	1.076	1.123	1.179	1.191	1.185	1.193	1.179	1.135	1.120	1.170	1.160	1.149
Cleveland, Ohio	1.119	1.103	1.139	1.213	1.221	1.223	1.225	1.207	1.174	1.164	1.200	1.123	1.176
Dallas-Fort Worth, Texas	1.109	1.087	1.085	1.120	1.165	1.178	1.184	1.182	1.178	1.172	1.124	1.118	1.142
Denver-Boulder, Colo.	1.035	1.001	1.109	1.179	1.200	1.204	1.211	1.221	1.212	1.204	1.163	1.125	1.155
Detroit, Mich.	1.177	1.191	1.233	1.264	1.281	1.300	1.317	1.305	1.282	1.260	1.270	1.292	1.264
Honolulu, Hawaii	1.379	1.358	1.354	1.351	1.364	1.387	1.424	1.431	1.428	1.428	1.427	1.421	1.396
Houston, Texas	1.053	1.023	1.046	1.095	1.123	1.136	1.322	1.123	1.108	1.084	1.089	1.090	1.108
Kansas City, Mo.-Kan.	1.035	.996	1.046	1.125	1.156	1.179	1.187	1.185	1.169	1.131	1.146	1.135	1.124
Los Angeles, Calif.	1.147	1.123	1.175	1.248	1.271	1.266	1.237	1.185	1.162	1.156	1.141	1.177	1.191
Miami, Fla.	1.142	1.131	1.156	1.200	1.237	1.241	1.240	1.238	1.226	1.215	1.214	1.219	1.205
Milwaukee, Wis.	1.128	1.108	1.160	1.211	1.235	1.249	1.247	1.240	1.207	1.178	1.212	1.209	1.190
Minneapolis-St. Paul, Minn.	1.158	1.128	1.152	1.220	1.258	1.316	1.331	1.329	1.300	1.256	1.259	1.260	1.247
New York, N.Y.	1.137	1.131	1.143	1.168	1.168	1.209	1.214	1.209	1.200	1.198	1.208	1.212	1.185
Northeast Pennsylvania	1.174	1.174	1.195	1.222	1.239	1.244	1.251	1.252	1.243	1.238	1.248	1.248	1.227
Philadelphia, Pa.	1.127	1.119	1.138	1.133	1.165	1.179	1.189	1.184	1.178	1.182	1.187	1.186	1.184
Pittsburgh, Pa.	1.173	1.167	1.236	1.272	1.226	1.246	1.244	1.244	1.238	1.227	1.202	1.204	1.223
Portland, Ore.	1.188	1.165	1.155	1.169	1.214	1.248	1.248	1.224	1.212	1.210	1.202	1.167	1.200
St. Louis, Mo.-Ill.	1.063	1.035	1.063	1.139	1.157	1.165	1.172	1.201	1.172	1.150	1.167	1.165	1.137
San Diego, Calif.	1.192	1.173	1.220	1.299	1.321	1.325	1.299	1.252	1.232	1.228	1.217	1.221	1.248
San Francisco, Calif.	1.227	1.211	1.236	1.272	1.307	1.313	1.298	1.259	1.236	1.234	1.215	1.217	1.252
Seattle-Everett, Wash.	1.232	1.208	1.189	1.190	1.239	1.263	1.258	1.237	1.221	1.213	1.197	1.210	1.221
Washington, D.C.	1.212	1.199	1.237	1.255	1.279	1.282	1.284	1.280	1.274	1.269	1.268	1.234	1.256

Gasoline-Unleaded Premium

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. City Average	$1.304	$1.290	$1.310	$1.340	$1.360	$1.371	$1.367	$1.359	$1.349	$1.342	$1.339	$1.334	$1.339
Anchorage, Alaska	1.404	1.374	1.365	1.366	1.386	1.397	1.404	1.383	1.393	NA	NA	NA	NA
Atlanta, Ga.	1.296	1.287	1.306	1.337	1.353	1.359	1.375	1.382	1.372	1.361	1.298	1.296	1.336
Baltimore, Md.	1.301	1.291	1.302	1.316	1.338	1.343	1.348	1.345	1.337	1.331	1.342	1.339	1.328
Boston, Mass.	1.298	1.287	1.292	1.302	1.329	1.343	1.342	1.347	1.342	1.337	1.342	1.344	1.325
Buffalo, N.Y.	1.286	1.273	1.299	1.291	1.308	1.326	1.334	1.332	1.327	1.327	1.324	1.329	1.313
Chicago, Ill.	1.369	1.360	1.399	1.425	1.440	1.441	1.451	1.448	1.420	1.410	1.443	1.438	1.420
Cincinnati, Ohio	1.254	1.254	1.290	1.327	1.341	1.337	1.339	1.339	1.308	1.310	1.332	1.345	1.314
Cleveland, Ohio	1.296	1.274	1.303	1.368	1.376	1.380	1.381	1.373	1.358	1.346	1.375	1.329	1.347
Dallas-Fort Worth, Texas	1.300	1.288	1.297	1.315	1.348	1.348	1.360	1.354	1.354	1.346	1.243	1.242	1.316
Denver-Boulder, Colo.	1.224	1.180	1.247	1.303	1.334	1.335	1.327	1.334	1.323	1.331	1.297	1.277	1.293
Detroit, Mich.	1.346	1.339	1.369	1.389	1.403	1.406	1.417	1.409	1.397	1.367	1.382	1.406	1.386
Honolulu, Hawaii	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Houston, Texas	1.248	1.229	1.245	1.273	1.301	1.303	1.308	1.306	1.292	1.277	1.283	1.287	1.279
Kansas City, Mo.-Kan.	1.157	1.150	1.191	1.246	1.270	1.292	1.299	1.299	1.294	1.264	1.277	1.280	1.252
Los Angeles, Calif.	1.327	1.314	1.355	1.413	1.425	1.419	1.386	1.344	1.327	1.326	1.310	1.311	1.356
Miami, Fla.	1.252	1.243	1.264	1.306	1.344	1.348	1.345	1.341	1.333	1.324	1.324	1.328	1.313
Milwaukee, Wis.	1.271	1.258	1.301	1.343	1.357	1.373	1.374	1.362	1.348	1.324	1.353	1.352	1.333
Minneapolis-St. Paul, Minn.	1.260	1.242	1.259	1.312	1.342	1.401	1.412	1.409	1.377	1.333	1.347	1.347	1.337
New York, N.Y.	1.289	1.283	1.298	1.319	1.336	1.352	1.354	1.351	1.340	1.342	1.346	1.358	1.331
Northeast Pennsylvania	1.311	1.311	1.326	1.344	1.359	1.364	1.370	1.371	1.366	1.363	1.369	1.365	1.351
Philadelphia, Pa.	1.296	1.293	1.305	1.283	1.306	1.323	1.327	1.328	1.327	1.329	1.337	1.341	1.316
Pittsburgh, Pa.	1.331	1.327	1.341	1.362	1.384	1.403	1.404	1.406	1.406	1.397	1.351	1.359	1.373
Portland, Ore.-Wash.	1.386	1.380	1.366	1.379	1.399	1.424	1.429	1.410	1.404	1.400	1.402	1.323	1.392
St. Louis, Mo.-Ill.	1.225	1.210	1.225	1.283	1.299	1.305	1.309	1.373	1.358	1.338	1.367	1.366	1.305
San Diego, Calif.	1.375	1.351	1.387	1.446	1.471	1.462	1.445	1.406	1.395	1.390	1.391	1.385	1.409
San Francisco, Calif.	1.381	1.355	1.381	1.414	1.462	1.464	1.438	1.428	1.412	1.404	1.395	1.397	1.411
Seattle-Everett, Wash.	1.367	1.345	1.333	1.336	1.365	1.378	1.374	1.359	1.345	1.342	1.329	1.332	1.350
Washington, D.C.	1.375	1.364	1.374	1.398	1.424	1.428	1.428	1.426	1.423	1.418	1.425	1.452	1.411

(NA—Data not adequate for publication)
Source: Bureau of Labor Statistics, Department of Commerce, Consumer and Energy Prices, 1985.

Residential No. 2 Prices for Selected States

(¢ gal., excluding taxes)

	Conn.	Maine	Mass.	N.H.	R.I.	Vt.	Del.	D.C.	Md.	N.J.	N.Y.	Pa.	Va.
1985													
January	106.9	97.9	107.2	101.3	108.1	106.9	103.8	112.1	107.5	105.0	111.3	102.9	106.2
February	107.2	98.5	107.1	102.7	106.9	107.3	104.0	117.1	108.6	105.7	112.0	103.2	106.8
March	106.8	100.6	107.3	103.3	106.2	107.9	104.6	115.9	108.3	105.1	111.3	102.1	105.8
April	107.0	101.5	106.6	102.2	106.9	106.4	105.1	113.9	109.7	105.2	110.7	100.9	103.8
May	106.2	99.4	104.5	99.9	102.1	105.4	100.7	112.4	108.1	103.4	109.7	99.8	103.9
June	103.5	95.4	101.1	94.4	98.6	103.7	96.4	107.1	104.4	99.6	108.1	95.0	104.4
July	100.2	91.4	98.3	90.9	97.5	101.6	96.2	107.3	101.2	97.4	105.0	92.1	99.6
August	99.5	91.0	96.1	91.7	95.9	101.5	97.5	105.5	98.9	97.3	105.0	92.5	99.2
September	100.5	94.0	100.7	97.5	101.0	104.9	98.8	107.1	103.2	101.4	104.5	96.6	102.2
October	106.4	99.4	104.7	102.3	104.4	106.9	102.7	109.9	106.3	103.4	107.0	98.6	105.8
November	111.4	103.7	110.5	107.7	111.6	111.2	107.1	114.5	111.8	109.3	114.3	105.7	107.5
December	114.3	105.6	110.2	109.1	111.1	113.4	110.7	117.0	112.7	112.2	115.0	108.9	110.2
1985 Average	**108.0**	**99.7**	**106.8**	**102.5**	**106.7**	**107.8**	**104.7**	**114.2**	**108.6**	**105.9**	**111.2**	**102.2**	**106.1**
1984													
January	115.7	110.2	114.4	114.0	113.7	116.6	114.8	122.0	115.6	114.1	116.3	112.9	111.4
February	121.7	112.6	119.7	117.8	117.5	118.9	118.4	128.6	121.9	119.5	124.3	117.4	117.5
March	114.5	103.3	113.1	108.8	111.7	115.1	111.1	122.6	116.2	113.5	117.0	110.9	112.6
April	113.4	103.3	112.4	107.7	110.7	113.3	109.9	119.9	115.6	110.6	116.0	107.8	110.8
May	112.5	102.7	112.6	108.8	111.4	112.2	109.0	119.5	113.0	109.1	114.5	105.8	111.1
June	110.6	103.7	110.5	104.5	110.8	112.6	107.2	116.3	109.9	107.1	115.0	103.3	108.7
July	107.4	102.5	107.3	101.9	109.3	108.6	103.7	116.5	109.0	104.9	112.8	99.7	107.2
August	104.7	98.0	105.5	98.6	106.0	108.0	103.7	109.8	105.2	103.6	110.2	99.6	105.2
September	105.4	99.1	106.0	101.0	105.9	108.9	102.1	109.9	106.7	104.3	109.3	100.9	105.9
October	106.2	101.9	106.9	102.2	107.4	108.0	103.5	111.8	107.8	105.7	111.9	101.5	106.7
November	107.2	100.6	107.2	102.7	106.5	107.5	103.3	111.9	106.2	105.2	111.7	102.9	107.1
December	106.4	97.9	107.0	103.1	107.1	108.4	102.8	112.9	107.1	104.9	111.3	103.2	107.7
1984 Average	**112.1**	**103.9**	**111.6**	**108.4**	**111.4**	**111.9**	**109.6**	**118.7**	**113.5**	**111.0**	**116.5**	**107.9**	**110.8**
1983 Average	**109.1**	**102.8**	**109.1**	**104.1**	**110.5**	**112.9**	**106.0**	**117.0**	**110.3**	**107.9**	**112.1**	**105.8**	**108.7**
1982 Average	**118.3**	**115.5**	**117.6**	**117.4**	**120.1**	**120.1**	**111.3**	**124.5**	**117.1**	**117.4**	**120.5**	**113.7**	**117.7**
1981 Average	**121.7**	**120.4**	**121.3**	**123.7**	**123.8**	**125.4**	**117.3**	**127.4**	**121.4**	**121.5**	**123.2**	**118.1**	**120.5**
1980 Average	**98.3**	**96.3**	**97.8**	**100.4**	**101.1**	**101.5**	**95.4**	**102.6**	**97.9**	**97.9**	**98.2**	**96.4**	**98.5**
1979 Average	**72.0**	**68.8**	**70.9**	**72.5**	**72.8**	**72.5**	**68.2**	**74.2**	**70.1**	**71.0**	**71.2**	**69.8**	**70.4**
1978 Average	**50.1**	**48.6**	**48.8**	**50.3**	**50.7**	**50.8**	**47.8**	**50.7**	**49.2**	**49.6**	**50.1**	**48.8**	**49.1**

	W.Va.	Ill.	Ind.	Mich.	Minn.	Ohio	Wis.	Idaho	Ark.	Ore.	Wash.	U.S. Avg.
1985												
January	98.6	95.2	98.6	102.1	99.5	98.3	97.3	96.8	108.6	96.1	100.6	104.9
February	98.3	94.4	97.8	101.0	99.8	96.7	96.1	96.9	107.6	96.6	99.8	105.3
March	98.1	94.5	96.3	101.3	101.0	97.9	96.4	96.6	112.8	95.7	100.3	105.0
April	96.4	96.7	98.6	98.2	101.4	99.9	97.6	96.1	NA	96.5	99.2	105.0
May	93.8	96.4	101.5	96.8	103.8	99.9	99.8	96.8	106.8	96.7	96.1	103.5
June	90.7	92.1	97.5	98.2	104.3	97.1	94.2	95.9	107.4	95.5	99.1	100.8
July	90.2	90.0	93.2	99.4	100.5	92.9	93.0	94.9	108.1	95.3	97.5	98.0
August	88.6	90.8	93.1	96.8	101.0	91.8	93.0	94.5	107.1	93.0	97.1	97.2
September	96.2	95.6	95.4	99.2	98.6	95.8	94.9	94.3	109.2	93.9	97.6	99.7
October	98.7	100.1	101.1	101.7	101.1	98.0	99.1	97.2	108.8	94.1	100.0	103.0
November	105.0	104.0	105.2	103.5	105.6	104.4	102.0	98.0	106.2	99.1	104.4	108.6
December	104.8	103.4	105.4	107.7	105.0	105.7	103.2	99.1	106.7	102.5	106.1	110.4
1985 Average	**98.1**	**97.5**	**99.3**	**101.9**	**101.9**	**99.7**	**98.3**	**97.2**	**108.1**	**97.0**	**101.1**	**105.3**
1984												
January	108.5	104.7	106.0	107.3	106.6	104.6	101.5	100.1	104.1	100.5	103.6	112.0
February	109.9	105.9	107.3	108.0	102.8	105.7	102.8	101.3	106.5	100.9	103.8	116.9
March	104.9	102.3	100.6	105.6	105.1	101.7	101.7	97.2	107.3	100.9	104.6	111.3
April	101.6	103.3	103.4	104.8	103.9	101.9	101.4	96.2	107.3	100.6	106.0	109.8
May	98.9	102.3	102.4	105.2	105.3	103.1	101.0	96.1	107.2	99.5	104.2	108.4
June	98.5	101.6	105.9	103.3	104.2	101.7	100.5	93.8	107.8	98.2	103.5	107.2
July	96.2	99.4	101.4	102.6	105.1	101.8	100.5	93.1	107.2	97.1	100.4	104.8
August	96.6	98.9	100.3	101.8	104.5	99.5	100.0	97.4	107.3	94.9	99.7	103.3
September	96.9	98.6	100.7	103.2	103.5	100.1	98.8	98.4	106.0	95.9	100.4	103.6
October	98.3	97.1	100.9	103.0	103.0	101.2	100.7	99.4	107.8	96.6	100.9	104.9
November	98.6	95.8	102.3	103.5	103.1	100.8	101.0	97.9	107.8	97.6	101.3	105.3
December	99.2	94.4	100.9	103.2	102.8	99.3	99.0	98.8	107.5	97.4	100.5	104.8
1984 Average	**102.1**	**100.1**	**103.1**	**105.0**	**104.1**	**102.1**	**101.0**	**98.5**	**108.9**	**98.3**	**102.6**	**106.1**
1983 Average	**101.0**	**100.4**	**100.7**	**106.4**	**103.1**	**101.3**	**101.2**	**101.8**	**108.8**	**103.6**	**109.0**	**107.8**
1982 Average	**109.3**	**110.9**	**114.3**	**113.9**	**115.1**	**110.2**	**107.8**	**110.4**	**117.4**	**111.6**	**117.6**	**116.0**
1981 Average	**115.0**	**114.9**	**118.5**	**118.3**	**118.4**	**113.2**	**109.1**	**110.4**	**118.0**	**111.4**	**116.5**	**119.4**
1980 Average	**92.2**	**95.8**	**99.6**	**97.8**	**99.9**	**91.9**	**91.5**	**91.6**	**97.8**	**97.3**	**100.8**	**97.4**
1979 Average	**65.1**	**68.8**	**72.7**	**70.9**	**72.4**	**68.6**	**67.3**	**62.1**	**68.2**	**68.0**	**69.7**	**70.4**
1978 Average	**46.2**	**46.5**	**48.5**	**47.9**	**47.8**	**47.4**	**44.7**	**43.6**	**53.2**	**45.8**	**48.6**	**49.0**

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1985, published March 1986.

Gasoline Prices by Grades and Months

(U.S. averages, retail, including taxes, in ¢ per gal.)

		Leaded Regular	Unleaded Regular	UnLeaded Premium (a)	Average for All Types
1985	January	106.0	114.8	130.4	114.5
	February	104.1	113.1	129.0	112.8
	March	107.1	115.9	131.0	115.5
	April	111.9	120.5	134.0	119.9
	May	114.4	123.1	136.0	122.3
	June	115.3	124.1	137.1	123.3
	July	115.4	124.2	136.7	123.3
	August	114.3	122.9	135.9	122.2
	September	112.9	121.6	134.9	120.9
	October	111.7	120.4	134.2	119.8
	November	112.3	120.7	133.9	120.1
	December	112.3	120.8	134.4	120.3
	Average	**111.5**	**120.2**	**134.0**	**119.6**
1984	January	113.1	121.6	136.9	120.0
	February	112.5	120.9	136.1	119.3
	March	112.5	121.0	136.2	119.4
	April	114.5	122.7	137.5	121.1
	May	115.4	123.6	138.0	122.1
	June	114.7	122.9	137.7	121.4
	July	112.9	121.2	137.0	119.7
	August	111.6	119.6	135.5	118.4
	September	112.0	120.3	136.0	118.9
	October	112.7	120.9	136.5	119.5
	November	112.4	120.7	136.4	119.3
	December	110.9	119.3	135.4	117.9
	Average	**112.9**	**121.2**	**136.6**	**119.8**
1983	January	114.6	122.8	137.6	121.3
	February	109.9	118.7	133.8	117.0
	March	106.4	115.1	130.8	113.5
	April	113.1	121.5	136.0	119.8
	May	117.7	125.9	139.7	124.3
	June	119.7	127.7	141.1	126.1
	July	120.7	128.8	142.1	127.2
	August	120.3	128.5	141.9	126.9
	September	118.9	127.4	141.0	125.7
	October	117.2	125.5	139.5	123.9
	November	115.6	124.1	138.4	122.4
	December	114.6	123.1	137.6	121.5
	Average	**115.7**	**124.1**	**138.3**	**122.5**
Average	1982	122.2	129.6	141.5 (a)	128.1
	1981 (b)	131.1	137.8	141.5 (a)	128.1
	1980	119.1	124.5	128.1 (a)	122.1
	1979	85.7	90.3	92.2 (a)	88.2
	1978	62.6	67.0	69.4 (a)	65.2
	1977	62.2	65.6	67.4 (a)	NA
	1976	59.0	61.4	63.6 (a)	NA
	1975	56.7	NA	60.9 (a)	NA
	1974	53.2	NA	56.9 (a)	NA

(a) In January 1984, this series was switched from leaded premium to unleaded premium to reflect changing market conditions. The monthly columns for 1983 have been revised to unleaded status.

(b) Data for 1981 and earlier are for leaded premium. Beginning in September 1981, Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the fourth column above, gasohol is included and unleaded premium is weighted more heavily.

Source: Department of Energy, Monthly Energy Review, March 1986.

Wholesale Price Trends Through 1985

	Refinery products in eight refinery markets representing total U.S.						Crude	
					Average 4 products			
Year	Motor gasoline ¢ gal.	Kero-sine ¢ gal.	Light fuel ¢ gal.	Heavy fuel ¢ gal.	¢ gal.	$/bbl.	8 areas $/bbl.	Products vs. crude $/bbl.
1985 (a)	81.11	81.69	76.66	56.41	73.06	30.69	24.070	6.62
1984	81.14	84.75	79.62	59.14	74.49	31.29	25.880	5.41
1983	86.97	85.12	80.05	57.30	75.33	31.64	26.190	5.51
1982	94.56	97.18	91.95	57.80	82.44	34.62	28.520	6.10
1981	101.63	101.03	97.20	61.17	88.75	37.28	31.770	5.51
1980	87.40	80.26	78.21	44.43	72.77	30.56	21.190	9.38
1979	56.84	56.50	54.47	33.63	49.50	20.79	12.640	8.15
1978	39.22	37.23	35.66	23.00	33.72	14.16	9.000	5.16
1977	36.99	35.81	34.41	25.87	32.21	13.95	8.570	5.38
1976	33.82	31.67	30.38	21.66	29.55	12.41	8.141	4.26
1975	30.27	27.41	26.09	22.03	27.03	11.35	7.560	3.79
1973	14.72	14.08	12.61	8.45	12.49	5.25	3.885	1.365
1971	12.70	12.90	10.75	7.76	10.94	4.59	3.385	1.205
1970	12.33	12.43	10.45	6.14	10.20	4.28	3.177	1.103
1965	11.52	11.28	9.04	4.81	9.12	3.83	2.864	0.966

(a) Preliminary

Source: Independent Petroleum Assn. of America. Product figures reflect trends in prices but not the actual sales realizations for producers or refiners.

Supplier Gasoline Prices, by Type of Seller

(¢ per gal., excluding taxes)

	Major Refiners			Other Refiners and Gas Plant Operators			Average		
	Sales to End-Users			Sales to End-Users			Sales to End-Users		
Year Month	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale
1985									
January	86.5	78.1	76.6	83.2	76.2	70.7	85.5	77.9	75.2
February	85.5	78.5	77.7	81.6	79.2	72.2	84.4	78.6	76.3
March	88.7	82.2	82.2	85.7	82.3	77.5	87.9	82.2	81.0
April	94.0	88.1	87.0	91.1	84.9	82.9	93.2	87.4	86.0
May	95.9	89.8	88.6	93.2	86.6	84.2	95.2	89.2	87.5
June	96.6	89.9	88.9	94.3	86.2	84.0	95.9	89.1	87.7
July	96.8	90.0	88.3	94.3	86.5	84.1	96.1	89.3	87.3
August	95.6	87.8	86.1	92.9	84.9	81.7	94.8	87.3	85.0
September	93.7	85.9	84.5	90.6	81.5	79.3	92.8	84.8	83.2
October	92.8	85.7	84.2	88.9	83.0	79.7	91.7	84.9	83.1
November	93.8	87.4	85.8	89.9	84.1	81.4	92.7	86.1	84.7
December	94.3	86.8	84.3	89.8	83.2	78.6	92.9	85.6	83.0
1985 Average	**93.0**	**85.7**	**84.7**	**89.8**	**83.6**	**79.9**	**92.1**	**85.2**	**83.5**
1984									
January	92.0	86.4	84.0	89.8	85.5	80.3	91.3	86.2	83.2
February	91.4	86.3	84.5	89.4	86.9	81.4	90.8	86.4	83.8
March	92.0	86.0	85.4	90.3	86.5	82.6	91.4	86.1	84.7
April	94.0	88.7	87.6	92.6	88.6	84.6	93.6	88.7	86.9
May	94.4	88.7	87.5	93.3	88.2	83.8	94.1	88.6	86.6
June	93.8	86.8	85.5	92.1	87.8	81.2	93.3	86.9	84.5
July	91.9	85.0	82.7	89.5	82.1	78.5	91.1	84.6	81.7
August	90.8	83.8	82.0	88.0	80.8	78.1	89.9	83.4	81.1
September	91.3	84.4	83.7	89.0	82.5	79.8	90.6	84.1	82.8
October	91.9	85.6	84.5	89.7	84.5	80.6	91.2	85.4	83.6
November	91.4	84.8	83.0	88.8	83.6	78.4	90.6	84.6	81.9
December	89.8	81.2	79.5	87.1	80.2	73.2	89.0	81.1	78.0
1984 Average	**92.0**	**85.7**	**84.2**	**90.0**	**84.9**	**80.2**	**91.4**	**85.6**	**83.2**
1983 Average	**97.0**	**90.6**	**89.0**	**95.2**	**89.7**	**85.6**	**96.4**	**90.5**	**88.2**
1982 Average	**106.2**	**101.1**	**98.3**	**105.6**	**100.2**	**94.3**	**107.2**	**100.9**	**97.3**
1981 Average	**117.0**	**109.4**	**107.5**	**114.2**	**108.4**	**103.2**	**115.9**	**109.2**	**106.4**
1980 Average	**105.6**	**98.7**	**95.1**	**103.0**	**97.8**	**91.3**	**104.6**	**98.5**	**94.1**
1979 Average	**72.8**	**68.0**	**64.3**	**71.0**	**67.5**	**61.8**	**72.1**	**67.9**	**63.7**
1978 Average	**49.4**	**46.2**	**43.8**	**48.2**	**45.8**	**42.1**	**48.9**	**46.1**	**43.4**

Supplier Gasoline Prices, by Grade and Type

(¢ per gal., excluding taxes)

	Leaded Regular			Unleaded Regular			Premium		
	Sales to End-Users			Sales to End-Users			Sales to End-Users		
Year Month	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale
1985									
January	78.0	74.5	70.7	85.8	79.2	76.0	96.3	86.3	84.6
February	77.1	75.1	72.0	84.6	79.7	77.4	95.3	86.3	85.4
March	80.5	78.6	76.7	88.0	83.7	82.1	98.7	88.4	89.9
April	85.7	83.6	81.4	93.5	88.7	87.1	103.3	96.2	94.7
May	87.6	85.4	82.9	95.6	90.4	88.8	105.4	98.4	96.1
June	88.2	85.5	83.1	96.4	90.2	89.0	105.8	97.5	96.2
July	88.4	86.6	83.3	96.5	89.7	88.1	106.1	96.5	95.1
August	87.1	85.1	81.1	95.1	87.2	85.7	105.0	94.8	93.2
September	85.6	82.1	79.2	93.1	85.2	83.8	104.7	93.0	92.0
October	84.8	82.2	79.4	92.1	85.4	83.4	105.1	92.1	91.8
November	85.8	83.0	80.9	93.1	86.5	85.0	105.4	92.3	93.2
December	85.8	82.7	78.8	93.3	85.8	83.0	105.6	94.2	92.2
1985 Average	**84.6**	**81.9**	**79.3**	**92.5**	**86.1**	**84.3**	**103.0**	**92.9**	**92.2**
1984									
January	85.6	83.7	79.5	92.5	87.0	84.3	101.4	94.4	91.7
February	84.9	83.9	80.3	91.9	87.0	85.0	101.7	95.3	92.0
March	85.4	83.4	81.3	92.5	87.4	85.9	102.5	94.5	92.8
April	87.6	86.0	83.3	94.5	89.7	88.2	104.3	96.9	95.1
May	88.1	85.7	82.9	94.9	90.0	87.8	104.5	97.4	95.0
June	87.2	84.3	80.7	94.1	87.7	85.7	103.7	94.8	92.7
July	84.7	81.8	78.0	91.8	85.3	82.6	101.9	92.2	90.0
August	83.4	80.6	77.3	90.6	84.0	82.1	101.5	92.2	89.5
September	83.9	81.5	78.9	91.3	84.8	83.8	101.5	93.0	91.2
October	84.6	82.4	79.7	91.8	86.6	84.5	102.0	93.6	92.0
November	83.8	81.6	77.8	91.0	85.5	82.9	101.1	91.9	90.6
December	81.8	77.1	73.5	89.3	82.8	78.9	99.9	89.8	87.2
1984 Average	**85.1**	**82.6**	**79.5**	**92.2**	**86.5**	**84.2**	**102.1**	**93.7**	**91.6**
1983 Average	**91.2**	**88.1**	**85.0**	**98.0**	**91.5**	**89.5**	**108.0**	**96.1**	**96.4**

Source: Energy Information Administration, Petroleum Supply Monthly, December 1985, published March 1986.

Supplier Product Prices For Resale

(¢ per gal., excluding taxes)

Year Month	Finished Motor Gasoline	Finished Aviation Gasoline	Kerosine-Type Jet Fuel	Kerosine	No. 1 Distillate	No. 2 Distillate			No. 4 Fuel	Residual Fuel Oil	Propane (Consumer Grade)
						No. 2 Fuel Oil	No. 2 Diesel Fuel	Average			
1985											
January	75.2¢	114.5¢	79.5¢	85.8¢	82.2¢	75.7¢	74.9¢	75.4¢	71.9¢	64.7¢	40.0¢
February	76.3	114.0	79.3	86.5	80.6	75.2	74.1	74.8	72.2	65.0	39.4
March	81.0	113.6	78.6	85.7	82.5	76.4	75.6	76.1	67.3	62.4	38.0
April	86.0	112.6	79.5	84.7	86.2	79.3	79.1	79.2	67.6	60.2	37.9
May	87.5	113.2	78.1	80.4	85.1	76.5	78.9	77.7	66.0	54.9	38.1
June	87.7	113.7	76.0	75.9	82.4	72.9	75.5	74.3	64.0	52.4	37.1
July	87.3	113.6	75.2	76.9	79.9	70.3	72.3	71.4	62.3	53.9	36.3
August	85.0	113.3	76.8	79.7	79.0	72.0	72.5	72.3	59.7	53.2	36.5
September	83.2	113.0	79.2	85.9	84.5	77.0	76.3	76.7	61.5	56.1	37.6
October	83.1	113.0	81.5	90.1	87.9	81.7	80.5	81.1	64.6	54.9	39.7
November	84.7	112.6	83.6	93.6	93.1	84.9	84.3	84.7	66.4	53.6	43.0
December	83.0	108.1	83.1	92.7	93.0	83.2	82.1	82.8	72.7	55.0	46.9
1985 Average	**83.5**	**112.9**	**79.4**	**87.4**	**86.3**	**77.6**	**77.2**	**77.4**	**67.1**	**57.6**	**39.7**
1984											
January	83.2	116.7	86.4	95.9	92.5	87.5	82.6	85.9	72.0	64.8	47.7
February	83.8	116.5	86.5	100.4	94.8	89.2	84.5	87.3	71.6	67.5	47.4
March	84.7	117.1	84.6	91.5	89.1	81.3	81.0	81.2	75.5	64.5	45.3
April	86.9	116.8	84.2	90.7	88.6	82.8	80.8	81.9	72.7	66.2	44.6
May	86.6	117.1	84.3	90.9	89.3	83.2	81.9	82.5	70.4	66.0	44.4
June	84.5	116.8	84.2	88.1	90.5	82.4	81.9	82.1	70.1	67.2	44.1
July	81.7	117.2	82.8	87.6	91.6	79.4	79.3	79.4	68.0	65.0	42.3
August	81.1	116.7	81.0	86.0	85.3	77.8	77.7	77.7	65.7	63.6	43.2
September	82.8	116.8	81.7	88.8	85.6	80.0	78.4	79.2	67.9	64.5	44.8
October	83.6	116.4	82.9	88.9	88.2	80.8	80.0	80.4	67.8	65.1	46.1
November	81.9	114.8	81.4	88.0	87.5	79.4	79.0	79.3	71.7	64.6	45.6
December	78.0	114.0	80.1	86.4	86.0	77.1	77.0	77.1	70.5	64.6	43.0
1984 Average	**83.2**	**116.5**	**83.0**	**91.6**	**89.2**	**82.1**	**80.3**	**81.3**	**70.7**	**65.4**	**45.0**
1983 Average	**88.2**	**117.8**	**85.4**	**89.2**	**89.6**	**81.5**	**80.8**	**81.2**	**72.6**	**60.9**	**48.4**
1982 Average	**97.3**	**122.8**	**95.3**	**101.8**	**103.8**	**91.4**	**91.4**	**91.4**	**73.7**	**61.2**	**42.7**
1981 Average	**106.4**	**125.0**	**101.2**	**106.6**	**107.1**	**97.6**	**97.2**	**97.4**	**78.3**	**66.3**	**46.6**
1980 Average	**94.1**	**112.8**	**86.8**	**86.4**	**88.0**	**80.3**	**80.1**	**80.2**	**67.0**	**52.8**	**41.5**
1979 Average	**63.7**	**72.1**	**66.0**	**62.4**	**58.3**	**56.9**	**57.4**	**57.1**	**47.0**	**39.9**	**29.1**
1978 Average	**43.4**	**53.7**	**38.6**	**40.4**	**40.6**	**36.9**	**36.5**	**36.7**	**30.5**	**26.3**	**23.7**

Supplier Product Prices to End-Users

(¢ per gal., excluding taxes)

Year Month	Finished Motor Gasoline	Finished Aviation Gasoline	Kerosine-Type Jet Fuel	Kerosine	No. 1 Distillate	No. 2 Distillate			No. 4 Fuel	Residual Fuel Oil	Propane (Consumer Grade)
						No. 2 Fuel Oil	No. 2 Diesel Fuel	Average			
1985											
January	84.6¢	121.7¢	81.4¢	106.0¢	85.1¢	87.0¢	77.6¢	80.2¢	80.2¢	68.4¢	78.8¢
February	83.6	121.1	80.9	103.7	84.2	86.1	76.7	79.1	80.7	68.7	76.1
March	87.1	121.4	80.4	103.1	86.1	86.0	77.0	78.4	79.5	67.2	74.6
April	92.4	121.2	80.1	101.0	90.2	85.8	79.9	80.7	78.7	64.1	75.7
May	94.4	121.9	79.5	94.1	88.6	82.2	79.7	80.0	74.6	59.5	70.5
June	95.2	121.7	78.6	88.2	86.9	77.8	77.2	77.3	71.9	55.6	66.8
July	95.4	120.2	78.2	86.0	84.7	72.4	74.5	74.2	71.0	56.4	62.9
August	94.0	118.9	77.7	89.9	84.4	74.4	73.8	73.9	69.3	55.8	62.9
September	91.9	119.5	78.1	96.0	88.5	81.1	78.1	78.5	73.0	58.6	63.8
October	90.8	118.9	78.8	100.4	90.8	85.2	81.6	82.1	75.1	58.3	69.7
November	91.7	118.3	80.1	106.7	94.7	91.3	85.4	86.4	77.2	56.8	72.2
December	92.0	117.0	80.9	111.5	93.0	92.3	85.6	87.3	78.5	58.2	75.2
1985 Average	**91.2**	**120.1**	**79.5**	**103.0**	**87.9**	**84.8**	**78.9**	**79.9**	**77.3**	**61.1**	**71.6**
1984											
January	90.6	123.9	85.8	106.8	95.3	97.7	84.4	87.5	82.1	69.0	76.8
February	90.2	123.7	86.5	117.9	99.9	104.6	87.4	91.2	80.8	70.4	76.3
March	90.7	123.8	85.6	111.3	93.8	94.7	83.2	85.6	80.2	68.5	76.4
April	92.9	124.4	85.1	105.8	93.5	91.9	82.4	83.7	77.9	69.1	76.5
May	93.4	123.9	85.2	102.4	93.7	90.9	83.2	84.1	80.8	69.5	70.4
June	92.5	124.6	84.5	94.3	92.6	86.9	84.0	84.4	80.7	71.0	70.6
July	90.4	124.3	84.1	90.6	91.7	84.3	81.3	81.6	79.6	69.0	69.6
August	89.2	123.2	83.4	92.8	88.4	82.8	79.7	80.1	74.2	67.1	71.9
September	89.7	123.7	83.1	99.2	89.9	84.3	80.2	80.7	79.4	67.5	73.4
October	90.5	123.3	83.2	102.7	90.5	87.3	81.6	82.3	79.4	67.8	74.1
November	89.9	119.3	82.4	106.1	90.7	87.7	80.7	81.8	79.6	67.9	73.8
December	88.0	121.9	82.2	101.4	88.5	88.1	79.4	81.1	79.8	67.7	70.0
1984 Average	**90.7**	**123.4**	**84.2**	**103.6**	**92.7**	**91.6**	**82.3**	**83.7**	**79.6**	**68.7**	**73.7**
1983 Average	**95.4**	**125.5**	**87.8**	**96.1**	**96.2**	**91.6**	**82.6**	**83.9**	**76.6**	**65.1**	**70.9**
1982 Average	**106.0**	**131.2**	**96.3**	**108.9**	**102.3**	**90.5**	**94.2**	**92.5**	**75.0**	**67.6**	**59.2**
1981 Average	**114.7**	**130.3**	**102.4**	**112.3**	**103.9**	**91.4**	**99.5**	**95.8**	**79.7**	**75.6**	**56.5**
1980 Average	**103.5**	**108.4**	**86.8**	**90.2**	**83.4**	**78.8**	**81.8**	**80.4**	**68.2**	**60.7**	**48.2**
1979 Average	**71.3**	**68.9**	**54.7**	**58.5**	**57.2**	**51.6**	**58.5**	**55.1**	**47.9**	**43.6**	**35.7**
1978 Average	**48.4**	**51.6**	**38.7**	**42.1**	**40.9**	**40.0**	**37.7**	**39.6**	**31.1**	**29.8**	**33.5**

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1985, published March 1986.

Supplier Prices of No. 2 Distillate Fuel Oil

(¢ per gal., excluding taxes)

	Sales to End-Users						
	To Residential Consumers	To Commercial/ Institutional Consumers	To Industrial Consumers	Sales Through Company-Operated Retail Outlets	To Other End-Users	Average	Sales for Resale
1985							
January	104.9	82.0	82.5	88.3	82.4	91.7	76.3
February	105.3	81.0	81.5	87.0	82.0	90.7	75.9
March	105.0	81.8	82.5	86.8	84.4	88.8	77.1
April	105.0	82.9	84.7	89.0	87.1	89.3	79.8
May	103.5	82.6	84.3	88.8	86.7	87.5	78.3
June	100.8	79.5	81.1	87.6	84.1	84.1	74.9
July	98.0	77.0	78.9	86.1	81.4	81.5	72.2
August	97.2	76.9	79.1	85.5	81.3	81.6	73.1
September	99.7	80.8	83.2	87.1	85.7	85.9	77.2
October	103.0	84.3	86.3	90.4	89.0	89.8	81.4
November	108.6	88.3	90.2	93.6	91.5	94.8	85.0
December	110.4	88.9	89.6	93.9	89.1	97.6	83.5
1985 Average	**105.3**	**82.2**	**83.4**	**88.6**	**85.4**	**89.1**	**78.1**
1984							
January	112.0	90.3	91.2	95.6	90.8	99.6	86.1
February	116.9	92.1	92.6	96.0	92.7	101.1	87.9
March	111.3	87.5	88.5	93.3	88.8	96.3	82.0
April	109.8	85.7	88.0	93.0	90.3	93.0	82.6
May	108.4	86.3	88.1	93.0	92.1	91.9	83.1
June	107.2	86.2	87.5	92.7	91.2	90.6	82.7
July	104.8	83.6	85.7	91.5	88.7	88.0	80.1
August	103.3	82.3	85.0	90.8	86.5	87.1	78.5
September	103.6	83.0	85.3	90.7	88.1	88.6	79.9
October	104.9	84.2	85.7	90.5	89.3	89.9	81.0
November	105.3	83.4	85.0	89.8	87.6	90.8	79.8
December	104.8	82.7	83.4	89.2	84.5	91.0	77.8
1984 Average	**109.1**	**85.7**	**87.0**	**92.0**	**89.2**	**92.6**	**81.9**
1983 Average	**107.8**	**86.3**	**88.3**	**94.3**	**89.7**	**93.3**	**81.8**

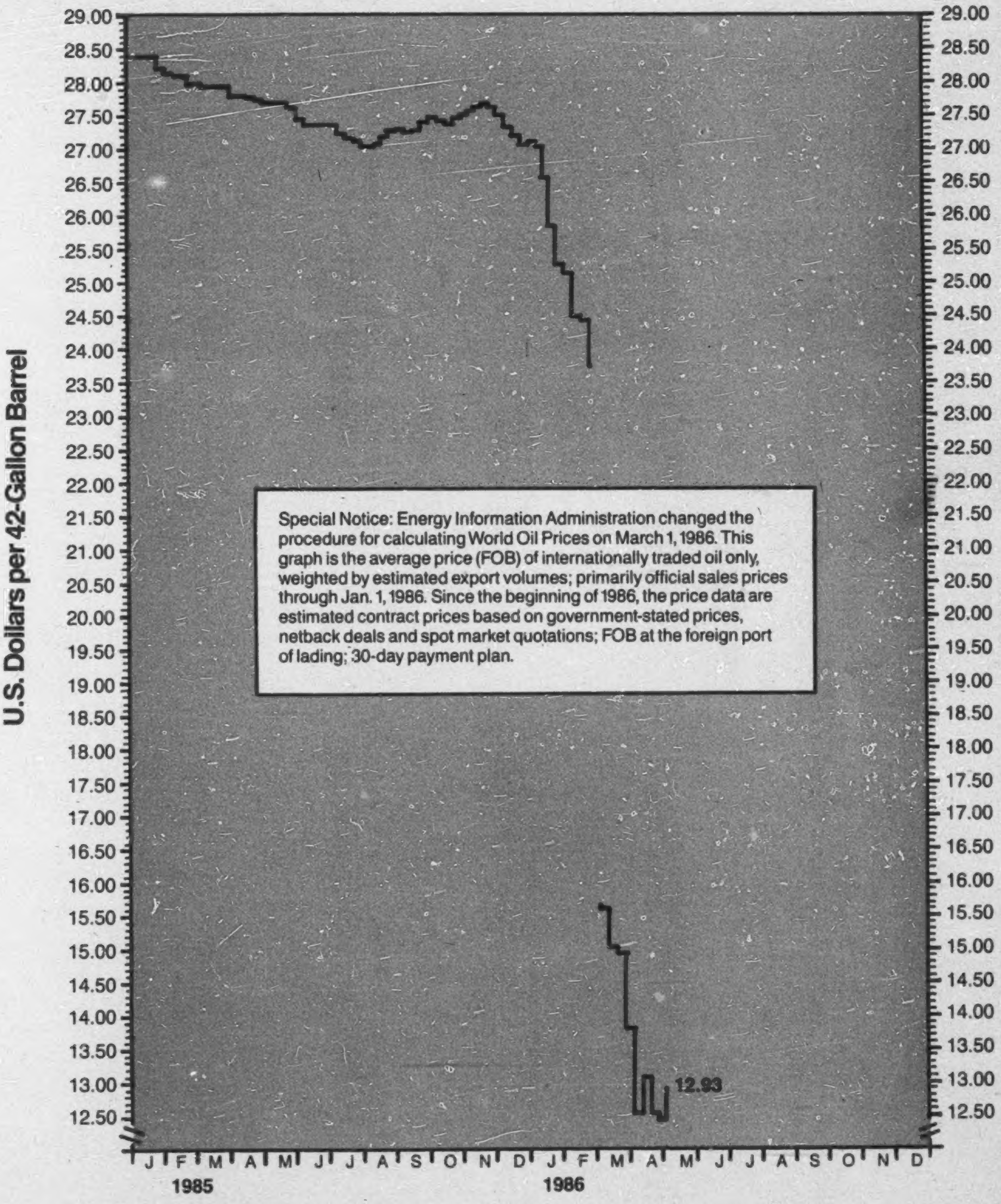
Supplier Prices of Residual Fuel Oil

(¢ per gal., excluding taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1%		Residual Fuel Oil Sulfur Content Greater Than 1%		Average	
	Sales to End-Users	Sales for Resale	Sales to End-Users	Sales for Resale	Sales to End-Users	Sales for Resale
1985						
January	71.1	67.6	66.5	63.3	68.4	64.7
February	71.2	67.6	66.3	63.4	68.7	65.0
March	70.1	66.2	65.0	60.8	67.2	62.4
April	67.5	63.0	61.9	58.7	64.1	60.2
May	61.2	58.1	58.0	53.4	59.5	54.9
June	59.9	54.9	52.8	50.6	55.6	52.4
July	58.9	56.4	54.6	52.8	56.4	53.9
August	57.7	55.1	53.7	52.1	55.8	53.2
September	62.8	60.1	54.8	53.1	58.6	56.1
October	63.6	60.1	53.8	52.3	58.3	54.9
November	61.7	57.8	52.8	50.7	56.8	53.6
December	62.6	60.7	54.4	52.2	58.2	55.0
1985 Average	**64.5**	**60.9**	**58.4**	**55.9**	**61.1**	**57.8**
1984						
January	73.6	71.0	64.6	62.3	69.0	64.8
February	75.1	71.4	65.8	65.7	70.4	67.5
March	73.1	70.5	64.7	61.9	68.5	64.5
April	73.1	69.2	66.5	64.7	69.1	66.2
May	72.7	68.3	67.4	65.0	69.5	66.0
June	73.2	69.8	68.9	66.1	71.0	67.2
July	71.5	66.8	66.7	64.0	69.0	65.0
August	69.5	65.6	65.0	62.7	67.1	63.6
September	70.0	65.9	64.9	63.8	67.5	64.5
October	70.8	66.8	65.8	64.3	67.8	65.1
November	70.4	66.8	65.8	63.6	67.9	64.6
December	70.5	67.5	65.6	63.3	67.7	64.6
1984 Average	**72.0**	**68.5**	**65.9**	**63.9**	**68.7**	**65.4**
1983 Average	**69.5**	**64.3**	**61.1**	**59.1**	**65.1**	**60.9**
1982 Average	**74.7**	**69.5**	**61.1**	**57.2**	**67.6**	**61.2**
1981 Average	**82.9**	**74.8**	**67.3**	**62.2**	**75.6**	**66.3**
1980 Average	**67.5**	**60.8**	**52.3**	**47.9**	**60.7**	**52.8**
1979 Average	**46.8**	**45.0**	**38.9**	**36.6**	**43.6**	**39.9**
1978 Average	**31.4**	**29.3**	**27.5**	**24.5**	**29.8**	**26.3**

Source: Energy Information Administration, Petroleum Supply Monthly, December 1985, published March 1986.

World Crude Oil Prices (1)



Special Notice: Energy Information Administration changed the procedure for calculating World Oil Prices on March 1, 1986. This graph is the average price (FOB) of internationally traded oil only, weighted by estimated export volumes; primarily official sales prices through Jan. 1, 1986. Since the beginning of 1986, the price data are estimated contract prices based on government-stated prices, netback deals and spot market quotations; FOB at the foreign port of lading; 30-day payment plan.

Source: Energy Information Administration, Weekly Petroleum Status Report, May 2, 1986.

Spot Market Product Prices

($ per bbl.)

		Motor Gasoline		Gasoil/Heating Oil		Residual Fuel Oil	
		Rotterdam (98-Octane)	New York (89-Octane)	Rotterdam (0.3% Sulfur)	New York (0.2% Sulfur)	Rotterdam (1% Sulfur)	New York (1% Sulfur)
1986							
Jan.	3	30.07	29.19	32.57	32.44	22.22	24.50
	10	29.13	29.08	30.96	30.87	23.42	24.50
	17	27.84	28.66	27.27	27.82	21.39	23.00
	24	25.26	26.14	23.72	24.78	17.64	21.15
	31	24.67	26.35	26.94	24.99	17.64	17.50
Feb.	7	23.85	21.42	26.00	21.52	14.63	15.50
	14	21.62	20.51	25.26	22.36	14.41	16.00
	21	20.39	19.40	27.47	22.15	14.71	16.25
	28	19.22	19.02	26.80	23.45	15.46	17.05
Mar.	7	19.22	17.22	23.45	26.46	14.48	16.25
	14	17.99	17.85	26.00	24.36	14.48	15.05
	21	17.99	19.32	24.66	24.99	14.48	16.00
	28	18.22	18.90	21.91	21.00	13.66	15.45
Apr.	4	18.11	18.63	19.03	17.43	12.38	14.00
	11	17.99	19.85	22.18	18.48	11.03	12.50
	21	18.17	19.53	20.30	17.43	10.28	12.50
	28	18.75	23.10	22.18	19.22	10.28	12.25
1985							
Jan.	4	27.72	28.27	29.35	29.76	28.22	28.25
	11	27.43	28.58	31.09	30.87	28.30	28.25
	18	27.02	28.50	32.23	32.76	28.67	29.25
	25	26.84	29.23	31.76	31.19	28.75	29.45
Feb.	1	26.96	30.43	32.30	31.19	28.15	29.25
	8	27.43	31.29	32.30	31.71	28.75	29.50
	15	28.42	31.29	34.04	31.92	29.20	29.50
	22	29.01	31.84	34.04	32.24	28.97	29.50
Mar.	1	28.78	31.50	31.43	32.34	27.62	29.50
	8	28.83	31.61	32.37	32.76	26.42	28.65
	15	29.42	31.61	32.10	33.12	26.42	27.35
	22	30.48	33.60	32.10	35.81	24.62	27.00
	29	30.59	33.71	32.50	35.39	25.30	26.75
Apr.	5	31.94	34.65	32.10	34.13	25.37	26.65
	12	33.35	34.65	31.56	32.97	25.30	26.25
	19	33.24	34.23	30.83	32.66	25.08	26.00
	26	33.00	34.34	31.03	32.66	23.94	25.75
May	3	33.35	34.02	29.69	31.61	23.50	25.00
	10	33.35	34.65	28.69	30.77	21.40	23.85
	17	34.29	34.65	29.16	30.24	21.40	21.75
	24	34.17	34.34	29.42	30.03	21.25	22.00
	31	33.59	34.76	29.36	30.14	21.40	22.00
Jun.	7	33.24	34.02	28.55	29.51	21.40	22.00
	14	33.00	34.13	28.95	29.61	21.40	23.50
	21	32.94	34.13	29.49	29.51	21.85	23.10
	28	32.94	33.81	29.02	29.30	21.39	23.25
Jul.	5	Not available.					
	12	33.47	33.81	29.76	28.77	21.55	23.00
	19	33.59	34.86	29.69	28.81	21.55	22.75
	26	33.35	33.81	29.96	28.56	21.55	22.25
Aug.	2	32.77	32.40	29.83	29.08	21.55	22.00
	9	32.77	31.64	29.83	29.97	21.55	22.10
	16	32.77	31.61	29.83	30.87	21.55	23.00
	23	31.24	32.87	32.51	31.02	23.27	23.75
	30	31.13	32.13	33.31	31.82	23.27	25.25
Sep.	6	31.24	32.55	33.71	33.33	23.35	25.25
	13	31.54	32.34	33.11	32.97	23.57	25.00
	20	31.54	32.13	33.85	32.87	23.27	25.50
	27	32.24	33.08	35.05	34.44	23.57	25.50
Oct.	4	33.76	32.76	36.52	35.22	23.57	24.50
	11	32.59	32.76	33.78	33.85	23.57	24.00
	18	32.30	35.07	35.12	34.76	22.82	23.50
	25	32.30	33.73	35.05	35.74	22.82	23.50
Nov.	1	31.88	33.51	36.26	36.64	22.37	23.25
	8	32.12	33.81	36.12	36.33	22.52	23.75
	15	32.12	34.96	37.06	36.68	23.27	24.25
	22	32.29	33.39	38.20	36.89	23.27	25.50
	29	30.12	34.08	38.13	37.21	23.27	25.00
Dec.	6	32.12	32.55	35.15	35.80	24.02	25.00
	13	30.07	30.93	31.90	33.60	21.62	24.25
	20	30.07	28.79	32.30	33.91	21.62	24.25
	27	Not available.					

Source: Energy Information Administration, Weekly Petroleum Status Reports.

International Prices for Gasoline and Fuel Oil

(U.S. dollars per gal. for gasoline; per bbl. for fuel oil; taxes included in both)

	1/1/85				7/1/84				1/1/84			
	Gasoline		Fuel Oil		Gasoline		Fuel Oil		Gasoline		Fuel Oil	
Country	Reg.	Prem.	Dist.	Resid.	Reg.	Prem.	Dist.	Resid.	Reg.	Prem.	Dist.	Resid.
WESTERN HEMISPHERE												
Argentina	1.79	1.95	25.11	17.07	1.64	1.75	24.29	16.47	1.40	NA	27.51	18.69
Bolivia	NA	.76	37.06	NA	NA	.56	27.82	NA	.45	.76	19.07	NA
Brazil	1.92	NA	26.30	27.39	1.85	NA	24.40	25.36	2.00	NA	24.04	26.83
Canada	1.55*	NA	45.78	NA	1.48*	NA	41.58	36.76	1.44	1.33	NA	NA
Chile	1.61	1.68	55.66	43.29	1.65	1.75	59.94	46.57	1.70	1.79	59.62	45.00
Colombia	NA	NA	NA	NA	.84	.65	NA	NA	.84	.85	NA	NA
Dominican Republic	NA	1.21	50.82	48.88	NA	1.97	63.00	56.00	NA	2.30	47.04	30.24
Ecuador	.74	.97	NA	15.62	.47	.63	NA	8.53	.55	.73	NA	9.24
Jamaica	1.46	1.50	41.43	31.63	NA	NA	NA	NA	2.21	2.27	62.53	32.11
Mexico	1.07	1.36	25.40	7.05	.89	1.20	25.40	6.42	.69	.94	18.37	4.96
Panama Republic	2.14	2.28	NA	35.53	2.14	2.28	NA	35.53	2.14	2.28	NA	NA
Paraguay	3.15	3.47	76.65	44.38	2.84	3.15	70.02	29.14	3.08	4.42	61.11	43.72
Peru	1.17	1.12	30.16	26.04	1.03	.96	36.12	NA	.97	1.09	28.90	26.54
United States	1.15*	1.31*	34.65	29.85	1.21*	1.37*	35.99	30.03	1.13	1.37	38.30	30.91
Uruguay	1.93	2.33	NA	24.60	2.15	2.64	NA	26.86	2.49	3.05	NA	29.76
Venezuela	.40	.61	5.94	4.24	.40	.61	5.94	4.24	.26	.88	2.40	1.78
WESTERN EUROPE												
Austria	2.03	2.10	NA	33.80	NA	2.18	NA	NA	2.16	2.26	NA	30.56
Belgium	1.87	1.92	41.40	29.99	1.99	2.04	41.21	29.31	2.17	2.24	45.53	33.21
Denmark	2.01	2.05	43.32	30.48	NA	2.28	44.43	29.71	2.37	2.40	56.10	41.75
Finland	2.19	2.27	62.95	30.55	2.28	2.38	42.68	27.99	2.35	2.44	70.88	25.68
France	NA	2.18	56.14	30.86	2.18	2.27	56.56	30.54	2.08	2.24	45.90	29.17
Germany, West	1.59	1.66	45.29	32.05	1.74	1.85	50.80	36.13	1.80	1.88	36.02	26.40
Greece	1.64	1.90	36.89	28.29	NA	1.92	46.54	27.70	1.70	1.85	38.00	21.63
Italy	2.43	2.52	54.14	30.02	2.66	2.77	56.63	30.56	2.85	2.96	57.47	30.98
Luxembourg	1.55	1.58	41.51	30.93	NA	1.74	43.96	30.49	1.79	1.85	44.18	30.11
Netherlands	NA	1.87	NA	31.58	NA	2.10	NA	30.69	2.24	2.30	NA	NA
Norway	2.11	2.17	44.51	32.42	2.30	2.40	48.53	40.94	2.42	2.49	NA	NA
Portugal	2.31	2.40	72.23	NA	2.47	2.54	76.62	29.68	2.56	2.70	65.54	24.19
Spain	1.89	2.02	48.64	29.51	2.05	2.19	48.13	28.99	2.10	2.30	58.85	23.75
Sweden	1.83	1.88	54.54	43.54	1.83	1.89	55.26	42.20	2.02	2.07	51.03	42.00
Switzerland	NA	1.69	49.72	34.72	NA	1.90	51.65	30.74	NA	NA	NA	NA
Turkey	1.45	1.56	41.58	27.69	NA	NA	NA	NA	1.70	1.83	48.15	32.66
United Kingdom	NA	1.81	NA	34.17	NA	2.03	41.91	32.59	NA	2.31	NA	NA
Yugoslavia	1.88	1.99	64.55	31.72	2.10	2.20	68.64	29.78	2.05	2.14	28.13	25.97
MIDDLE EAST												
Israel	1.67	1.97	52.59	28.67	1.63	1.93	50.24	23.72	NA	NA	NA	NA
Saudi Arabia	.26	.37	3.78	6.66	.27	.38	3.85	6.80	.17	.23	NA	NA
AFRICA												
Ethiopia	2.18	2.36	46.58	NA	2.18	2.36	46.58	NA	2.18	2.36	46.58	NA
Ghana	1.33	1.42	31.34	29.73	1.19	1.31	25.53	24.13	.85	.87	19.58	21.68
Kenya	NA	NA	NA	NA	2.10	2.23	43.33	26.97	NA	NA	NA	NA
Morocco	2.38	2.42	34.99	30.90	2.23	2.31	34.11	30.13	2.32	2.42	32.09	30.21
South Africa	4.64	4.76	139.25	103.48	3.18	3.27	98.76	59.18	2.50	2.57	78.27	46.94
Tunisia	1.56	1.65	NA	16.38	1.67	1.77	NA	16.52	1.53	1.63	NA	15.36
ASIA-PACIFIC												
Australia	1.43	1.51	NA	NA	1.48	1.53	67.10	37.94	2.00	2.05	62.32	40.45
Indonesia	1.36	1.55	35.78	32.53	NA	NA	NA	NA	1.33	1.52	35.19	31.99
Japan	2.22	2.37	56.29	34.40	2.26	2.42	59.57	34.69	2.38	2.55	63.60	35.86
Pakistan	NA	NA	NA	19.46	1.75	1.89	NA	NA	1.69	1.84	NA	18.30
Philippines	NA	NA	NA	NA	1.69	1.74	52.88	41.03	1.70	1.75	48.00	38.66
Singapore	1.98	2.08	36.13	NA	1.97	2.21	42.52	NA	2.12	2.42	45.75	NA
Sri Lanka	NA	2.23	53.38	27.15	NA	2.03	58.53	29.77	NA	2.10	60.58	23.90
Thailand	1.50	1.62	38.98	10.22	1.78	1.92	46.31	12.14	1.77	1.92	46.21	24.73

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*U.S. and Canada only—both grades in 1985 and 1984 are unleaded; other countries are all leaded motor fuels.

NA—Not available.

Source: International Energy Annual 1984, Energy Information Administration, published October 1985. Gasoline and fuel oil prices are for the capital cities of each country except those of the U.S., which are the national average for the month quoted. All gasoline prices are retail pump prices and include all taxes and customs duties.

International Prices of Diesel Fuel and Household Kerosine

(U.S. cents per gal.)

Country	Auto Diesel		Household Kerosine	
	1/1/85	7/1/84	1/1/85	7/1/84
Western Hemisphere				
Argentina	.60	.58	.69	.67
Bolivia	.88	.66	.25	.15
Brazil	1.13	1.07	1.12	1.08
Canada	1.35	1.28	1.35	1.35
Chile	1.32	1.43	1.43	1.46
Colombia	NA	.84	NA	.75
Dominican Republic	1.21	1.50	1.15	1.33
Ecuador	.60	.33	.21	.22
Jamaica	1.00	NA	.62	NA
Mexico	.51	.49	.42	.34
Panama Republic	1.33	1.33	1.20	1.20
Paraguay	1.89	1.73	1.57	1.10
Peru	.72	.76	.43	.44
United States	1.16	1.14	1.06	.91
Uruguay	1.31	1.42	1.31	1.43
Venezuela	.18	.18	.25	.25
Western Europe				
Austria	1.24	1.38	2.51	NA
Belgium	1.04	1.05	.79	.82
Denmark	.80	.79	1.08	NA
Finland	1.38	1.43	.98	1.05
France	1.30	1.37	NA	NA
Germany, West	1.18	1.54	NA	NA
Greece	.78	.80	.76	NA
Italy	.96	1.01	1.09	1.15
Luxembourg	1.06	1.07	.74	NA
Netherlands	1.17	1.12	NA	NA
Norway	.83	.91	.97	1.06
Portugal	1.23	1.30	1.15	1.21
Spain	1.13	1.15	1.09	1.15
Sweden	1.07	1.09	1.27	1.00
Switzerland	1.55	1.70	NA	NA
Turkey	.84	NA	.83	NA
United Kingdom	1.30	1.39	NA	NA
Yugoslavia	1.30	1.38	.94	.91
Middle East				
Israel	1.34	1.10	1.32	1.04
Saudi Arabia	.11	.11	.17	.14
Africa				
Ethiopia	1.22	1.22	.97	.97
Ghana	.98	.72	.62	.58
Kenya	NA	1.30	NA	.92
Morocco	1.14	1.11	.99	.97
South Africa	4.14	2.83	2.30	1.59
Tunisia	NA	NA	.39	.40
Asia-Pacific				
Australia	1.23	1.24	NA	NA
Indonesia	.72	NA	.47	NA
Japan	1.32	1.37	.94	.99
Pakistan	NA	.97	NA	.66
Philippines	NA	1.10	NA	1.06
Singapore	.81	.85	.82	.92
Sri Lanka	.98	1.03	.77	.80
Thailand	.78	.93	.69	.82

Source: International Energy Annual (see footnotes on preceding page).

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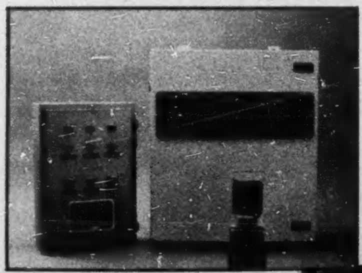

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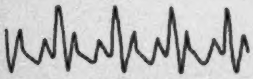

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Service Station Shakeout Continues

A flattening-out of the decade-long slump in the retail service station population failed to materialize in 1985, as had been so joyfully projected by many industry savants this time last year.

Instead of a modest loss of about 2,000 stations—which would have been the smallest decrease in years—the retail industry saw the 1985 population total drop by 7,500 stations.

Not only that, the forecast by the U.S. Commerce Department's Bureau of Industrial Economics says another 3,500 stations will be gone by the end of this year. That's a two-year loss of 11,000 stations.

But before perspectives are lost and hands are wrung, gasoline marketers would be well advised to evaluate these new statistics against the industry that exists today, not the one that used to be when such population comparisons were more meaningful.

For example, both the Bureau of Industrial Economics and the U.S. Census Bureau count only those stations that generate 50% or more of their sales dollars from gasoline. Automatically excluded from this population total then are thousands of convenience stores, garages, mass merchandisers, fleets and other places which also retail gasoline.

In the '60s and the very early '70s, these exclusions didn't make much difference because the great majority of the gasoline outlets were "true" retail service stations. Now, however, close to 35,000 C-stores sell gasoline (Southland, for example, sold almost 2 billion gal. in 1985 and Cumberland Farms later this year could become the nation's biggest independent retailer at 2.65 billion gal./year).

Not considered either are other thousands of dispensers known to be out there. Hunter Publishing Co., which is *NPN*'s parent, currently estimates the retail station universe to be 187,000, of which 115,000 have repair bays and 34,500 others do not. Add in the C-store vendors and the truck stops and the Hunter total is 187,000. This is a respectable total which most marketers will agree with.

Do not discount the new government figures, however. But use them for what they now are—benchmarks in the year-to-year comparisons of the "true" service station population, not the gasoline marketing industry as a whole.

A factor to be considered, too, is that no one has a nose count that's strictly a nose count. Most are statistical projections and "guesstimates."

The Bureau of Industrial Economics, which is a unit of the Commerce Department, has been counting service stations for more than a quarter of a century in its annual franchising report. All things considered, its track record is good and the results interlock favorably with the Census Bureau's retail trade censuses which take place every five years.

But both Bureaus use questionnaires and sampling techniques, business and government reports, industry estimates and evaluations, and simply old-fashioned horse sense based on experience to make their counts. This is why there are so many gray areas and often differences in industry population estimates.

The new government projection indicates that the "true" retail service station population declined from 132,080 outlets in 1984 to 124,600 in 1985 and will continue to drop in 1986 until it reaches approximately 121,000 next December.

Since the peak year was 1972—226,500 stations—this means the industry is within spittin' distance of being just one-half of what it used to be. If 1986 should be like 1985—worse than what is now expected—the half-size figure could be reached by the end of this year. As it is, the shakeout has cost marketing a total of 102,000 conventional stations in the 13-year span 1973 through 1985.

The Outlook for 1986: −2.9%

	1986	1985	1984	% Change 1986-85	% Change 1985-84
Number of establishments (a)	121,000	124,600	132,080	(2.9%)	(5.7%)
Company-owned	21,780	22,428	23,774	(2.9)	(5.7)
Franchisee-owned	99,200	102,172	108,306	(2.9)	(5.7)
Total sales of products and services (Add 000,000)	$102,502	100,492	100,997	2.0	(0.5)
Company-owned	$18,450	18,089	18,179	2.0	(0.5)
Franchisee-owned	$84,052	82,403	82,818	2.0	(0.5)
Average per station	$847,000	807,000	765,000	5.0	5.5
No. of employees	NA	NA	581,000	—	—

(a) As of Dec. 31 of each year; service stations as defined by U.S. Census Bureau, i.e., stations with 50% or more of their income being derived from the sale of gasoline and oil products.
Source: "Franchising in the Economy, 1984-86," U.S. Department of Commerce, February 1986.

Comparable U.S. Census Bureau Data (a)

	1982	1977	1972	% Chng. '82 v. '77	% Chng. '82 v. '72
No. of stations (b)	116,154	147,618	183,366	−21.3%	−19.5%
Total sales ($000,000)	$ 94,832	$ 53,749	$ 31,440	76.4	71.0
Average per station	$816,433	$364,108	$171,461	124.2	112.4
No. of employees	604,288	672,673	747,668	−10.2	−10.0

(a) Censuses are made every five years. Normally, the count includes stations with payrolls and those without payrolls, i.e., the 'moms and pops' and small family operations. In 1982, the Census Bureau overlooked the stations without payrolls, however, so the comparisons in this table are for stations with payrolls, which represented about 81% of the population in 1972 and 83% of the population in 1977.
(b) Stations are those which, by Census Bureau definition, generate 50% or more of their sales dollars from gasoline.
Source: U.S. Department of Commerce, Census of Retail Trade for 1982, 1977 and 1972.

The Rise and Fall of U.S. Service Stations

	No. of Stations (a)			Sales ($000,000)		
Year	Total	Company-owned	Franchisee-owned	Total	Company-owned	Franchisee-owned
1986	121,000	21,780	99,220	$102,502	$18,450	$84,052
1985	124,600	22,428	102,172	100,492	18,089	82,403
1984	132,080	23,774	108,306	100,997	18,179	82,818
1983	136,570	24,583	111,987	103,121	18,561	84,560
1982	144,690	26,044	118,646	106,544	19,178	87,366
1981	151,250	27,225	124,025	105,145	18,926	89,219
1980	158,540	30,122	128,418	96,338	18,304	78,034
1979	164,780	31,310	133,480	71,894	13,660	58,234
1978	172,300	32,737	139,563	60,884	12,177	48,707
1977	176,465	33,375	141,180	58,231	11,646	46,585
1976	186,840	37,368	149,472	53,416	10,683	42,733
1975	189,480	37,896	151,584	47,387	9,477	37,910
1974	196,130	39,226	156,904	43,829	8,766	35,063
1973	215,380	47,176	172,704	37,666	7,533	30,183
1972(b)	226,459	44,200	176,259	33,656	6,312	26,844

(a) As defined by U.S. Census Bureau, stations with 50% or more of their income from petroleum product sales; (b) Peak year for stations.
Source: "Franchising in the Economy, 1984-1986," U.S. Department of Commerce, February 1986.

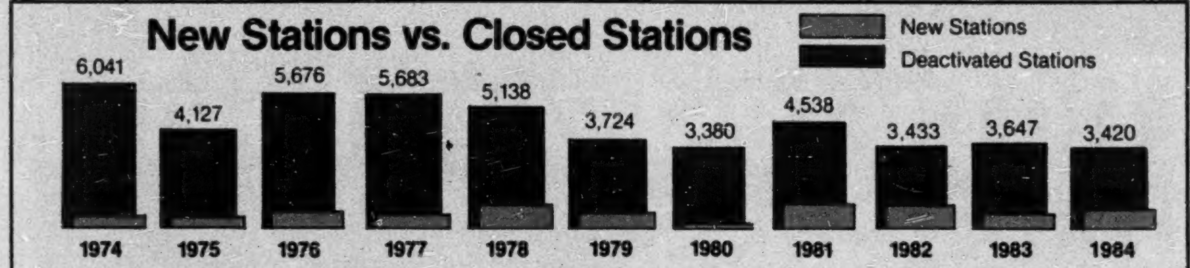
Service Station Population by States—1986 vs. 1982 (a)

The service station population totals on this page are projections by *NPN* based on more limited data than had been used in previous *Factbooks*. Because the U.S. Census Bureau was unable to provide a "universe picture," in 1982, as it had in 1977 and 1972, the 1982 totals are of stations with payrolls only—about 85% of the industry. Thus, these station totals cannot be compared with those published in prior *Factbook* editions, which included all the smaller stations which had no formal payroll operations.

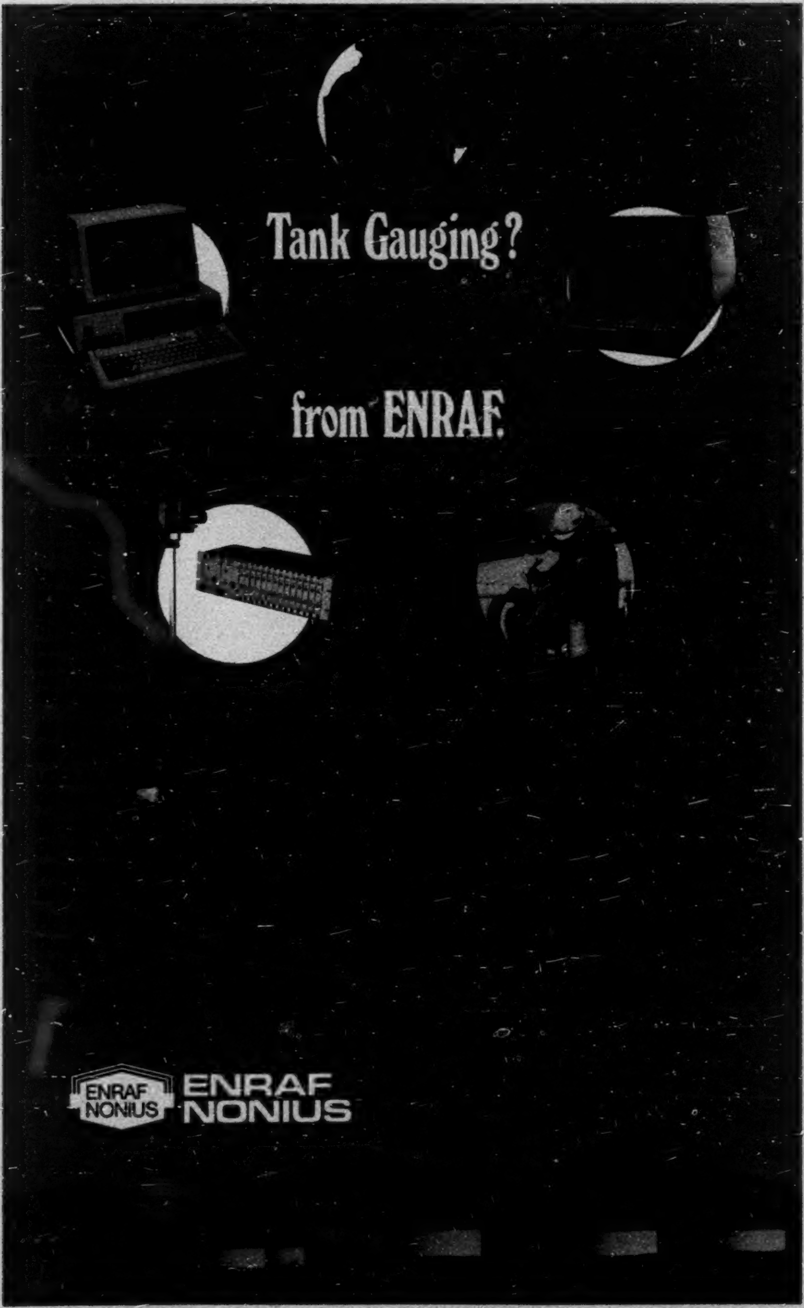
	Total Gasoline Service Stations				Total Sales (add 000)			
	1986(a)	1985(a)	1984(a)	1982(b)	1986(a)	1985(a)	1984(a)	1982(b)
Alabama	1,673	1,722	1,827	2,001	1,237,694	1,213,425	1,207,388	1,172,677
Alaska	147	152	161	176	217,317	213,056	211,996	205,901
Arizona	1,006	1,036	1,099	1,204	1,378,829	1,351,793	1,345,067	1,306,398
Arkansas	1,016	1,047	1,110	1,216	809,069	793,224	789,278	766,587
California	8,880	9,145	9,698	10,624	11,105,301	10,887,550	10,833,383	10,521,934
Colorado	1,312	1,351	1,433	1,570	1,508,897	1,479,311	1,471,951	1,429,634
Connecticut	1,443	1,486	1,576	1,726	1,526,346	1,496,417	1,488,973	1,446,166
Delaware	251	258	274	300	280,253	274,758	273,391	265,531
D.C.	132	136	144	158	190,020	186,294	185,367	180,038
Florida	4,601	4,738	5,024	5,504	5,043,886	4,944,986	4,920,384	4,778,928
Georgia	2,572	2,649	2,809	3,077	2,514,813	2,465,503	2,453,237	2,382,709
Hawaii	307	316	335	367	428,577	420,174	418,083	406,064
Idaho	413	425	451	494	372,502	365,198	363,381	352,934
Illinois	4,290	4.418	4,685	5,132	4,845,057	4,750,056	4,726,424	4,590,544
Indiana	2,647	2,726	2,891	3,167	2,877,638	2,821,214	2,807,178	2,726,474
Iowa	1,725	1,777	1,884	2,064	1,450,877	1,422,429	1,415,352	1,374,662
Kansas	1,263	1,301	1,379	1,511	1,126,715	1,104,622	1,099,127	1,067,528
Kentucky	1,771	1,824	1,934	2,119	1,639,254	1,607,112	1,599,116	1,553,143
Louisiana	1,648	1,698	1,800	1,972	1,619,928	1,588,164	1,580,263	1,534,832
Maine	535	551	584	640	406,597	398,624	396,641	385,238
Maryland	1,569	1,616	1,713	1,877	2,110,540	2,069,157	2,058,862	1,999,672
Massachusetts	2,476	2,550	2,704	2,962	2,446,751	2,398,776	2,386,841	2,318,222
Michigan	3,452	3,555	3,770	4,130	4,213,688	4,131,067	4,110,514	3,992,341
Minnesota	1,862	1,916	2,034	2,228	2,157,607	2,115,301	2,104,777	2,044,267
Mississippi	995	1,025	1,087	1,191	724,971	710,756	707,220	686,888
Missouri	2,461	2,534	2,687	2,944	2,352,038	2,305,919	2,294,447	2,228,484
Montana	441	455	482	528	421,585	413,319	411,262	399,439
Nebraska	944	972	1,031	1,129	784,424	769,043	765,217	743,218
Nevada	398	410	435	476	595,558	583,880	580,975	564,273
New Hampshire	457	471	499	547	421,620	413,353	411,296	399,472
New Jersey	3,475	3,578	3,795	4,157	3,329,730	3,264,442	3,248,201	3,154,818
New Mexico	652	671	712	780	681,762	668,394	665,069	645,949
New York	5,289	5,447	5,777	6,328	4,648,581	4,557,433	4,534,759	4,404,389
North Carolina	2,549	2,625	2,783	3,049	2,001,225	1,961,986	1,952,225	1,896,100
North Dakota	353	363	385	422	382,783	375,277	373,410	362,675
Ohio	4,935	5,082	5,389	5,904	5,597,699	5,487,940	5,460,637	5,303,649
Oklahoma	1,337	1,376	1,460	1,599	1,202,070	1,178,500	1,172,637	1,138,925
Oregon	1,247	1,284	1,362	1,492	1,168,926	1,146,006	1,140,305	1,107,522
Pennsylvania	4,832	4,976	5,277	5,781	4,512,780	4,424,294	4,402,282	4,275,721
Rhode Island	430	443	470	515	390,615	382,956	381,051	370,096
South Carolina	1,393	1,434	1,521	1,666	1,264,528	1,239,734	1,233,566	1,198,102
South Dakota	446	459	487	533	376,535	369,152	367,315	356,755
Tennessee	2,081	2,143	2,273	2,490	2,066,228	2,025,714	2,015,636	1,957,688
Texas	6,865	7,070	7,497	8,213	6,938,780	6,802,725	6,768,881	6,574,282
Utah	704	725	769	842	693,738	680,136	676,752	657,296
Vermont	300	309	328	359	229,431	224,932	223,813	217,379
Virginia	2,217	2,283	2,421	2,652	2,596,676	2,545,760	2,533,095	2,460,271
Washington	1,794	1,847	1,959	2,146	1,791,128	1,756,008	1,747,271	1,697,039
West Virginia	887	913	969	1,061	748,430	733,755	730,105	709,115
Wisconsin	2,258	2,325	2,466	2,701	2,226,576	2,182,918	2,172,058	2,109,613
Wyoming	359	370	393	430	420,719	412,469	410,417	398,618
Total	**97,088**	**99,987**	**106,031**	**116,154**	**100,077,313**	**98,115,012**	**97,626,878**	**94,820,200**

(a) Projected by *NPN* on the basis of Census Bureau and other Commerce Department data. However, as noted above, this data is for stations with payrolls—not the "universe" which the *Factbook* published in prior years. These stations, by Census Bureau definition, are those which generate more than half of their sales dollars through the sale of gasoline and oil products.

(b) U.S. Census Bureau, Retail Trades Census, 1982, published in November 1984.



API definitions: A service station is defined as a retail outlet at which 50% of the dollar volume is from gasoline and related products; a newly constructed outlet is defined as one that has been erected completely on vacant land or is new on the site. This category does not include rebuilds. Permanently deactivated outlets are those where equipment and identification have been removed, and where re-opening as a service station is no longer contemplated.
Source: American Petroleum Institute, New Construction Report, May 1984.



Service Station Deactivations

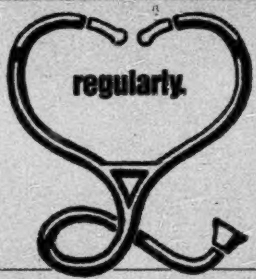
In the budget crunch that paralleled the plummeting of crude oil and product prices, and profits in the first half of 1986, American Petroleum Institute discontinued its annual report of service station deactivations—a traditional *Factbook* feature for the past 10 to 12 years.

The report above was the last one, which API issued in May 1985.

Although future plans are still indefinite, API says it does not anticipate resuming the study in 1987 or thereafter.

In its final report, API says deactivations in 1984 were 3,420, which made it the second lowest one-year total since the study began in 1972. The lowest number of deactivations took place in 1980, when only 3,380 stations were reported dismantled and shut down. API noted that in 1984, 778 stations were modernized along with 258 new constructions. The preceding year there were 511 modernizations and 225 new structures. In addition, 805 stations were rebuilt over the two years. Modernization was described as face-lifting and rebuilding was a ground-up make-over.

Have a heart-to-heart with your doctor . . .



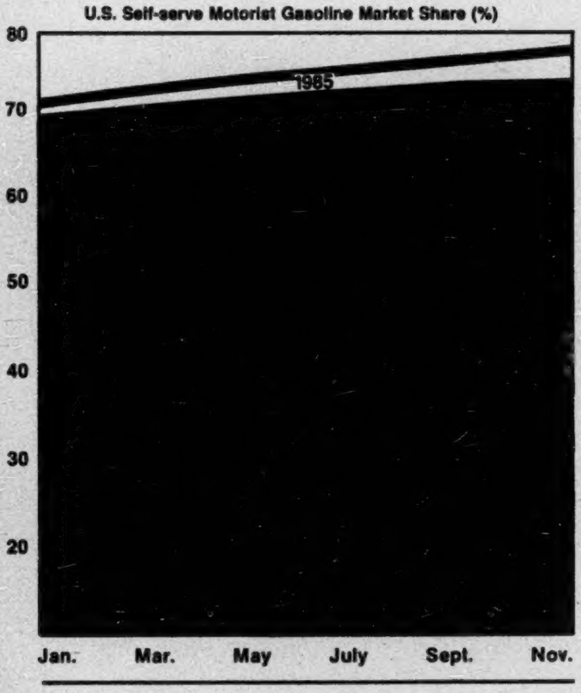
American Heart Association
WE'RE FIGHTING FOR YOUR LIFE

Self-serve Satisfies

Self-serve continues to make major impact on gasoline marketing in the U.S. The latest opinion poll indicates self-service hit a responsive chord with roughly 77% of the nation's motorists in 1985, up a spanking 5% over the preceding tally in 1984.

Only two states—New Jersey and Oregon—still ban self-service gasoline marketing.

The satisfaction poll is made monthly by Amoco Oil Co.



State (a)	'85	'84	State (a)	'85	'84
Utah	95%	93%	District of Col.	82%	83%
Colorado	91	91	Missouri	82	80
Arizona	90	90	Arkansas	81	78
Texas	90	89	Iowa	81	79
Washington	89	88	Minnesota	81	79
Louisiana	88	85	Ohio	81	79
New Mexico	88	88	Tennessee	81	79
Florida	87	85	North Dakota	79	79
Wisconsin	87	86	South Dakota	79	77
California	87	87	Alabama	78	75
Idaho	86	89	Kansas	78	77
Illinois	86	85	Nebraska	78	72
Indiana	86	84	Kentucky	76	78
Montana	86	88	Mississippi	76	74
Nevada	85	88	West Virginia	72	71
South Carolina	86	88	Rhode Island	65	57
Virginia	86	85	Connecticut	65	62
Wyoming	86	83	New Hampshire	64	59
North Carolina	85	85	Pennsylvania	61	58
Oklahoma	85	83	New York	54	51
Maryland	84	83	Vermont	53	37
Georgia	83	81	Massachusetts	47	42
Michigan	83	81	Maine	44	39
Delaware	82	81			

(a) Self-service is illegal in New Jersey and Oregon.
Source: Amoco Oil, Monthly Survey.

A Conversation Accent For
Office, Shop or Family Room Wall

OLD-TIME
GASOLINE PUMP SIGNS

SINCLAIR AIRCRAFT
TEXACO
A
E
DIXIE
RED HAT
B
F
RED CROWN GASOLINE
C
G
FLYING A GASOLINE
D
H

Buy Separately Or Save On Set

Use indoors or out. Authentic reproductions in color and design of signs used on pumps and walls of the "remember-when days" gasoline stations. Each 11½-in. diam. sign is made of 18-gauge steel. Designs are imprinted with steel screen process, then finished in fired-on porcelain enamel. Choose an individual sign, two or more in any design combination or save more, buy the set!

20001 Pump Sign .... Each $14.95
20002 Pump Sign Set. (1 of each.) .... Set 99.95

Mail Coupon Now! Guaranteed Satisfaction

NPNFB

Executive Gift Guild
Box 894, Mount Prospect, IL 60056

Please ship Pump Signs (20001) I've indicated below at $14.95 each, plus shipping and handling (shown at right).

State
Quantity A___B___C___D___E___F___G___H___

Please ship_____Pump Sign Sets (20002) at $99.95, plus $5 shipping for each set.

Shipping Charges
1...$2.65
2... 3.15
3... 3.65
4... 4.50
5... 5.00
IL residents add 7% Sales Tax

☐ Check or Money Order Enclosed for $__________
☐ Charge $ _________to my ☐ VISA ☐ MasterCard Account.
Card No. __________________ Exp. Date __________
Signature ____________________________
Name_______________________________
Address _____________________________
City ________________________________
State _____________________ Zip __________

Gasoline Shares by Key Categories—1985

Last year, a new study on the retail gasoline market was made public by MPSI Americas, Inc., Tulsa, Okla., a firm specializing in international computer software and information services as well as market research and planning. Now, MPSI has released its updated study covering the year 1985.

Since this is the first time when comparisons can be made with previous year data, the numbers offer an interesting portrait as to where the action is in terms of market segments. Figures for both 1985 and 1984 are shown in the table below.

The study breaks out, on both a national and regional basis, market shares and percentage of outlets for conventional service stations, volume pumpers, convenience stores that sell gasoline, plus a catch-all category of "others" including car washes, garages and other facilities.

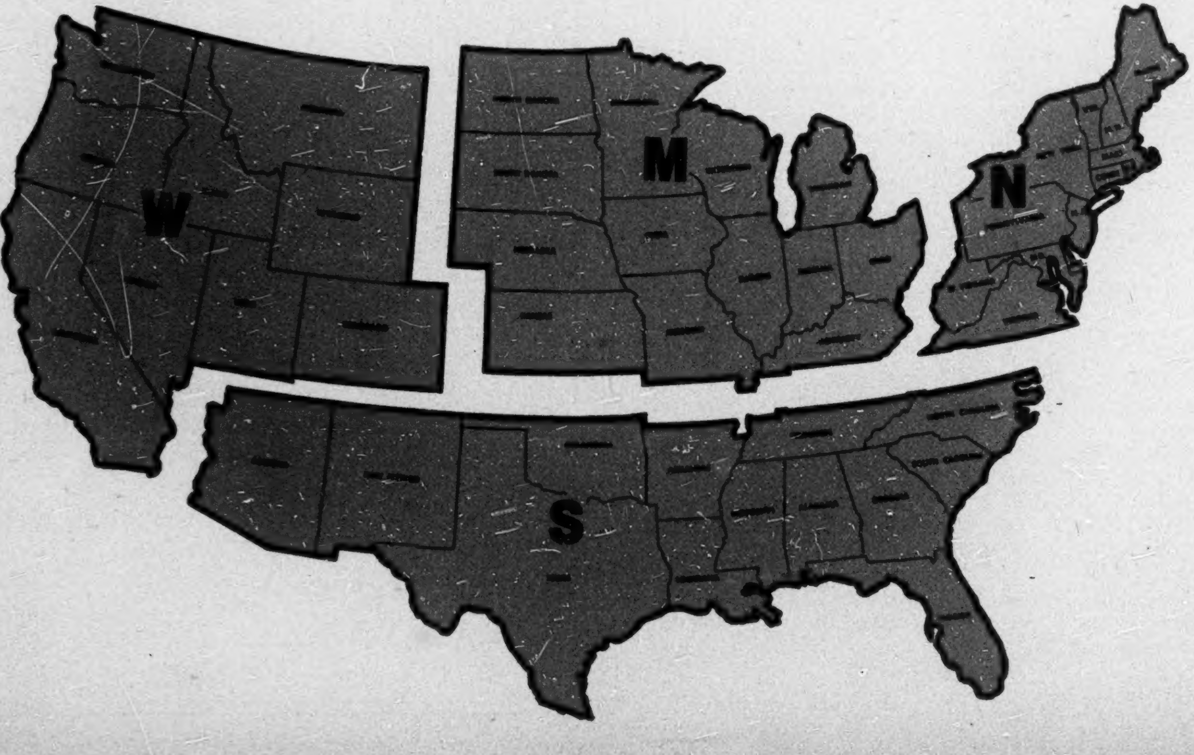
This study involves primarily the metropolitan areas of the U.S., where most gasoline is marketed. No attempt was made to count rural vendors or highway units which, while important to the industry, do not add materially to overall consumption statistics.

Particularly interesting is the shifting share of market revealed in the study, notably the 2.3% increase in percentage of outlets and 1.3% increase in percentage of gasoline volume gained by the convenience store segment between 1984 and 1985.

Regional and National Market Shares

	Service Stations		Pumpers		Convenience Food Stores		Others		Total	
	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984
Northeastern Region										
• % of Outlets	60.1	62.4	23.9	24.2	5.1	2.6	10.9	10.8	100.0	100.0
• % of Volume	57.6	59.1	37.5	37.0	2.2	1.2	2.7	2.7	100.0	100.0
• Avg. Monthly Volume (Gallons)	71,433	79,931	116,951	119,412	32,958	35,159	18,257	19,798	72,035	78,126
Midwestern Region										
• % of Outlets	43.5	44.1	34.4	35.3	6.7	4.9	15.4	15.7	100.0	100.0
• % of Volume	35.5	35.6	54.7	55.9	4.5	3.1	5.4	5.4	100.0	100.0
• Avg. Monthly Volume (Gallons)	52,132	52,533	101,705	108,822	42,183	41,226	22,455	22,261	63,918	65,005
Sunbelt Region										
• % of Outlets	31.3	33.1	28.9	27.9	26.9	23.8	12.9	15.2	100.0	100.0
• % of Volume	30.6	31.4	51.9	51.7	13.2	11.7	4.3	5.2	100.0	100.0
• Avg. Monthly Volume (Gallons)	58,688	58,806	107,728	110,950	29,487	29,330	19,599	20,911	59,927	59,932
Western Region										
• % of Outlets	54.4	55.8	28.5	27.4	7.3	6.0	9.8	10.8	100.0	100.0
• % of Volume	46.4	47.5	46.9	46.2	3.5	2.6	3.2	3.7	100.0	100.0
• Avg. Monthly Volume (Gallons)	57,335	55,181	110,836	109,193	32,549	28,451	21,011	21,779	67,187	64,815
Total United States										
• % of Outlets	46.2	47.6	28.5	28.4	13.2	10.9	12.1	13.1	100.0	100.0
• % of Volume	42.9	43.6	47.1	47.2	6.3	5.0	3.7	4.2	100.0	100.0
• Avg. Monthly Volume (Gallons)	61,295	60,780	109,152	110,257	31,356	30,572	20,199	21,182	66,012	66,311

Source: MPSI Americas, Inc., Tulsa, Okla.



Business at Service Stations

Dollar Volume and Product Sales

Year	No. of service stations	Total sales (add 000,000,000)	Avg. per station (add 000)	Passenger cars (add 000)	Gasoline		Motor oil	
					Avg. gal.	Sales (000,000 gal.)	Qts. per year	Sales (add 000,000 qt.)
1986	121,000	$102.5	$847.1	132.000	581	76,692	—	—
1985	124,600	100.5	806.5	130,364	580	75,611	—	—
1984	132,080(a)	101.0	764.7	127,867	579	74,035	—	—
1983	136,570(a)	103.1	755.1	126,727	578	72,922	—	—
1982	144,690(a)	106.2	733.0	123,746	587	72,638	7.3	907
1981	151,250(a)	101.7	672.4	123,462	579	71,484	7.3	909
1980	158,540(a)	96.3	608.0	121,723	603	73,399	7.3	907
1979	164,790(a)	70.9	430.0	120,248	664	79,845	7.3	880
1978	172,300(a)	60.9	353.0	116,534	715	83,760	7.6	921
1977	176,465(b)	56.5	320.0	113,696	706	80,269	7.9	900
1976	186,400(a)	48.0	257.0	110,188	711	78,344	8.0	887
1975	189,480(a)	43.8	232.0	106,712	712	75,979	9.5	1,014
1972	226,459(a)	33.7	148.8	96,567	755	72,908	10.0	966

(a) Franchising in the Economy 1984-86. Department of Commerce; Bureau of Census definition of service stations: 50% or more of dollar volume comes from the sale of petroleum products.

Station Customers

Year	No. of service stations	Privately owned passenger cars		Households owning cars		Licensed drivers		Women drivers	
		Total (add 000)	Avg. per station	Total (add 000,000)	Avg. per station	Total (add 000,000)	Avg. per station	Total (add 000,000)	Avg. per station
1985	**124,600(a)**	**130,364**	**1,046.3**	**75.0**	**601.9**	**158.2**	**1,269.7**	**75.7**	**607.5**
1984	132,080(a)	127,867	968.1	74.0	560.2	155.4	1,176.5	74.3	562.5
1983	136,570(a)	126,727	927.9	73.0	534.5	154.2	1,129.1	73.4	537.5
1982	144,690(a)	123,746	855.8	72.0	497.6	150.3	1,038.8	71.7	491.9
1981	151,250(a)	123,462	816.3	70.0	460.5	147.0	969.0	69.2	457.5
1980	158,540(a)	121,723	767.8	67.2	423.8	145.3	916.7	68.1	429.5
1979	164,790(a)	120,248	731.1	65.9	400.0	143.3	868.3	66.8	403.5
1978	172,300(a)	116,534	676.3	64.6	375.0	140.8	817.1	65.3	379.0
1977	176,465(a)	113,696	644.3	63.3	365.5	138.4	784.4	63.7	361.0
1976	186,400(a)	110,188	591.1	62.0	332.6	130.3	689.4	57.9	306.3
1975	189,480(a)	106,712	563.2	60.5	319.3	127.8	662.2	56.8	294.3
1972	226,459(b)	96,567	426.4	52.8	232.2	118.4	522.8	52.6	232.3

(a) Franchising in the Economy 1984-86, Department of Commerce.
(b) Bureau of Census definition of service stations: 50% or more of dollar volume comes from the sale of petroleum products.
Source: Based on data from Motor Vehicle Mfgs. Assn., Federal Highway Administration, and *NPN*.

How Stations Rank in Sales (Billions of Dollars)

	1985	% Change '85-'84	1984	% Change '84-'83	1983	% Change '83-'82	1982	% Change '82-'81
All Retail Stores	1,378.7	6.3%	1,297.0	10.4%	1,174.3	9.2%	1,074.6	3.4%
Food Group	281.5	4.3	270.0	5.9	254.9	2.2	249.3	4.9
Automotive Group	288.4	4.1	277.0	19.0	232.8	27.5	182.6	1.1
General Merchandise	160.4	4.4	153.6	10.2	139.4	5.1	132.6	4.0
Eating and Drinking Places	130.4	5.1	124.1	8.2	114.7	9.6	104.7	11.3
Gasoline Service Stations	**102.9**	**1.9**	**101.0**	**2.1**	**98.9**	**(−4.4)**	**103.5**	**1.8**
Apparel Group	71.0	7.6	66.9	10.9	60.3	17.3	51.4	7.6

Source: Survey of Current Business, Department of Commerce, Vol. 66, No. 1, January 1986.

Personal Consumption Expenditures

	(Billions of Dollars)					Seasonally Adjusted at Annual Rate—1985			
	1985	% Change '85-'84	1984	% Change '84-'83	1983	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Total Expenditures	$2,581.9	6.6%	$2,423.0	12.6%	$2,155.9	$2,525.0	$2,563.3	$2,606.1	$2,633.3
Durable Goods	360.8	9.0	331.1	18.3	279.8	351.5	356.5	376.0	359.2
Automobiles	167.7	9.0	153.8	18.9	129.3	163.1	165.4	183.0	159.3
Furniture	128.9	8.0	119.4	14.7	104.1	125.7	127.4	128.6	133.9
Other Durable	64.1	10.7	57.9	24.8	46.4	62.7	63.4	64.4	66.0
Nondurable Goods	912.5	4.6	872.4	8.8	801.7	895.7	910.2	914.5	929.4
Food	474.2	5.0	451.7	8.5	416.5	465.5	472.1	475.9	483.3
Clothing and Dress	156.1	6.0	147.4	16.1	127.0	152.8	156.3	155.7	159.8
Gasoline and Oil	**92.0**	**1.4**	**90.7**	**0.8**	**90.0**	**89.3**	**92.9**	**92.2**	**93.7**
Other Nondurable Goods	190.1	4.1	182.6	8.6	168.2	188.2	188.9	190.7	192.6
Fuel Oil and Coal	15.8	(−11.1)	17.9	(−14.8)	21.0	16.1	15.4	16.0	15.9
Other Nondurable	174.3	5.8	164.7	11.9	147.2	172.1	173.5	174.8	176.8
Services	1,308.6	7.3	1,219.6	13.5	1,074.4	1,277.8	1,296.6	1,315.6	1,344.6

Source: Survey of Current Business, Department of Commerce,, Vol. 66, No. 1, January 1986.

Retail Rankings: The Pecking Order Changes

Mergers, acquisitions, sell-offs and pull-outs in 1984 and 1985 continued to have an impact on the ranking and station numbers of the larger oil companies.

By far the biggest shift in the 1985 retail rankings occurred with Chevron, which jumped from No. 6 in the rankings in 1984 to No. 2 last year. That company's big step up obviously resulted from its acquisition of approximately 8,000 Gulf stations early in 1985.

Also moving up rapidly (from No. 14 to No. 10) is Southland-owned Citgo.

Texaco, although it went through some market retrenchment in 1985, hung on to the top spot by a narrow margin over Chevron with 18,718 outlets. Texaco also leads in number of states with 47.

Moving in the other direction was Arco, which startled the industry with its pull-out from its eastern markets. Arco slid from No. 13 in the 1984 rankings to No. 18 in 1985 and now markets in only six western states.

Unranked, but certainly an impressive company is independent marketer Getty Petroleum (formerly Powertest). Getty's 1,553 branded retail outlets would put it at No. 19 in the rankings.

		Outlets	*1984*
1	Texaco	18,718	(1)
2	Chevron	18,645	(6)
3	Exxon	17,427	(2)
4	Amoco	15,077(a)	(3)
5	Mobil	13,310	(4)
6	Shell	11,129	(5)
7	Unocal	10,763	(7)
8	Phillips	10,505	(8)
9	Standard Oil (Ohio)	7,930	(9)
10	Citgo	6,370	(14)
11	Conoco	6,276	(11)
12	Sun	5,830	(10)
13	American Petrofina	4,249	(12)
14	Marathon	2,361	(15)
15	Diamond Shamrock	2,034	(16)
16	Ashland	1,914	(17)
17	Kerr-McGee	1,879	(18)
18	Arco	1,748	(13)
19	Murphy	585	(19)
20	Tenneco	448	(20)
21	Crown Central	247	(21)

	Number of States*		Branded retail outlets	
	'85	'84	'85	'84
American Petrofina	24	22	4,249	4,385
Amoco	36(a)	36	15,077(a)	15,652
Arco	6	22	1,748	3,884
Ashland	15	15	1,914	1,910
Chevron	43	38	18,645	10,618
Citgo	39	31	6,370	3,599
Conoco	38	34	6,276	4,800
Crown Central	7	7	247	188
Diamond Shamrock	12	24	2,034	2,060
Exxon	39	38	17,427	18,139
Kerr-McGee	20	22	1,879	1,839
Marathon	6	6	2,361	2,299
Mobil	40	41	13,310	13,862
Murphy	14	14	585	591
Phillips	34	34	10,505	9,705
Shell	40	38	11,129	11,010
Standard Oil (Ohio)	19	30	7,930	8,560
Sun	29	29	5,830	6,425
Tenneco	13	15	448	423
Texaco	47	46	18,718	19,558
Unocal	41	42	10,763	10,365

Source: NPN Questionnaires

*Includes District of Columbia

(a) In May, 1986 Amoco announced it was discontinuing dealer and jobber marketing operations in Mass., R.I., La., and Tex., by Dec. 31, 1986, and Conn. (except Fairfield and New Haven Counties) by May 31, 1987. The withdrawal affects 924 branded outlets and 75 Amoco jobbers.

28 Oil Company Credit Cards in the U.S.—1985

(Add 000 in all categories)

Company	Active Accounts	Total Proprietary Cards	Proprietary Sales Volume	Bank Card Sales Volume	T&E Sales Volume	Total Credit Sales
Shell	4,800	15,581	$3,649,800	—	—	$3,649,800
Chevron/Gulf	4,500	15,400	3,910,000	$503,000	—	4,413,000
Texaco	3,700	14,971	3,512,000	502,006	$250,000	4,264,006
Amoco	3,612	14,063	3,314,445	—	21,443	3,335,888
Exxon	3,244	12,200	2,810,818	—	—	2,810,818
Mobil	3,100	13,600	2,033,000	268,000	—	2,301,000
Unocal	2,122	7,000	2,089,000	311,000	32,000	2,432,000
Sohio	1,944	5,000	1,495,000	88,000	—	1,583,000
Sunoco	1,210	4,842	821,461	95,454	4,988	921,903
Phillips	1,161	4,613	1,001,603	150,555	—	1,152,158
Conoco	510	1,400	240,762	50,436	—	291,198
Citgo	300	2,247	220,528	92,242	—	312,770
Marathon	250	1,103	225,232	12,662	—	237,894
Petrofina	201	626	180,312	—	—	180,312
Total Petroleum	185	825	160,444	114,000	—	274,444
Diamond Shamrock	100	975	140,391	30,888	11,614	182,293
Ashland	80	275	78,965	63,549	45,156	187,670
Beacon	80	317	60,829	—	—	60,829
Tenneco	57	140	33,000	4,000	—	37,000
Derby	35	215	40,000	47,000	—	87,000
Totals (top 20)	**31,191**	**115,393**	**$26,017,590**	**$2,332,792**	**$365,201**	**$28,714,983**
Totals (next 8)	**40**	**180**	**38,813**	**5,432**	**—**	**44,245**
Grand total Top 28 Companies	**31,231**	**115,573**	**$26,056,403**	**$2,338,224**	**$365,201**	**$28,759,228**

Source: The Nilson Report, December 1985, plus corrections made subsequently.

Chevron Tops in Credit Card Sales, Shell Leads in Card Accounts

Chevron generated more credit card sales dollars in 1985 than any other oil company even though it ranked only second best in the total number of active accounts in operation and the total number of proprietary cards ostensibly in the hands of consumers.

This was one of the highlights of the 1985 oil company credit card sales analysis by The Nilson Report, a private newsletter that's circulated among credit card executives in oil and other industries. It is published monthly but has no set schedule for updating its oil industry data.

Nilson said Chevron generated $4.4 billion in credit card sales in 1985—$3.9 billion of it via its own cards (including Gulf's) and $500 million via bank cards.

The report said Shell, which topped the field with 4.8 million active charge accounts and 15.6 million proprietary cards, ranked third in total credit card sales dollars, behind Texaco. Shell had $3.5 billion in total sales while Texaco had $4.3 billion. Texaco, like Chevron, also had a half-billion in bank card sales. Shell's charges were confined to its own cards, although some individual retailers accepted bank cards.

Nilson said the number of proprietary cards issued by oil companies rose from 113 million in 1984 to 117 million in 1985. Total accounts, active accounts and spending have remained about the same, the latter about $26 billion annually, Nilson said.

The newsletter noted that the use of bank cards for gasoline purchases has risen significantly in the past three years, increasing from $1.8 billion in 1982 to $2.4 billion in 1985. Bank cards, it said, are now generating about 8.5% of the credit card sales at service stations. On the other hand, the so-called T&E cards (American Express, Diners, Carte Blanche, etc.) are moving at a much slower pace and are estimated now at about 1% of total charges.

Nilson said the average sale on both bank and T&E cards ran 10% to 20% higher than on the proprietary cards which average $17.79 for 12.8 gal. of gasoline at $1.39 gal. Nilson said card holders averaged 4.66 purchases monthly (56 per year) for a total of $996.24 annually per active account.

Nilson said credit card losses in 1985 amounted to $192.7 million, which was 0.73% of credit card sales. Of that amount, it said, $171.5 million went to credit losses and $21.2 million to fraud.

The latest analysis also included a report on Canadian credit card usage. There Shell led the field in the number of active accounts and in both proprietary and total sales. Significantly, Shell as a company accepts bank and T&E cards in Canada and got more than half of its 1985 volume from these two sources. Shell had $1.0 billion in credit card sales in Canada in 1985, $412.5 million in proprietary cards and $590.5 million in third-party cards. [See International Section in this issue for details.]

Information on The Nilson Report can be obtained via P.O. Box 49936 (Barrington Station), Los Angeles, CA 90049; (213) 476-5094.

C-stores Continue Upward Surge

Having started from almost ground zero a decade ago, the growth of convenience stores selling gasoline has been phenomenal. According to John Roscoe, a West Coast C-store chain operator and author of the annual "Dollars Per Day Survey of the Small Food Industry," nearly two-thirds (65%) of the estimated 58,000 convenience-type stores in the United States now market gasoline.

Roscoe's 1986 Dollars Per Day Survey, which is an analysis of the top nine publicly owned C-store chains extrapolated to represent the industry as a whole, estimates that all C-type stores, including traditional stores and other food and gasoline combinations, sold 16,808,446,000 gallons in 1984 or 14.3% of the highway gasoline marketed in the U.S. The average store sold 1,227 gallons of gasoline per day.

Roscoe says that C-type stores increased their percentage of the national gasoline market by 1.87% in 1984, and he estimates that over 20% of the gasoline sold in the U.S. in 1985 was sold through C-stores. By contrast, he says, in 1976 only 1% of total U.S. gasoline volume was sold through convenience stores.

As for the nine chains cited in the survey, they sold 3,281,690,023 gallons in 1984, an increase of about 12% over the previous year. These nine accounted for 3.24% of total U.S. gasoline sales in 1984 through their 7,592 stores. That same year, gasoline made up almost one-third (32.6%) of the total sales of the nine chains.

Ranking the nine firms in terms of pre-tax profits, Roscoe cited Shop & Go, Mango, Fla., as the most profitable for the fifth straight year. Following in descending order were Circle K, El Paso, Texas; National Convenience Stores, Houston; Southland Corp. (7-Eleven), Dallas; Casey's General Stores, Des Moines, Ia.; Sunshine Jr. Stores, Panama City, Fla.; Munford Inc., Atlanta; Dairy Mart Convenience Stores, Enfield, Conn.; and Conna Corp., Louisville, Ky.

Cumberland Farms Inc., a privately-held eastern C-store chain not included in the Dollars Per Day Survey, recently took over the mantel as the nation's number one independent gasoline marketer. Cumberland, which acquired most of Chevron's northeast marketing facilities in late 1985, boosted its annual gasoline volume to about the 2.65 billion gal. a year level at the take-over date. Cumberland now has about 3,860 outlets, but many are former Chevron and Gulf gasoline stations, at least temporarily.

Southland, the former number one independent, is now labeled a "refiner-marketer" due to its acquisition of Citgo Oil Co. in 1983, which included a Citgo refinery.

Another study of the C-store business by the federal government, although limited to franchised outlets, tends to confirm Roscoe's findings. The government data (See Franchise Projections table at right) projects the franchised C-store population will pass the 16,000-unit level by the end of 1986. Although the growth rate of franchised operations was somewhat slower than the year-ago projection (2.4% versus the forecast 4.4%), the government says this year's growth rate should more than double last year's to 5.3%. Even more interesting is the government's prediction that total franchised sales and services will increase by a whopping 13.3% in 1986 to $12,369,139,000.

As convenience store companies extend their penetration into the gasoline market, so, too, are petroleum marketers expanding their involvement in the C-store field. As reported in the May 1986 issue of *NPN* (p49), 11 of the 14 largest integrated oil companies now supply 10,045 C-stores, with 2,109 of those being direct operations. These figures are lower than the actual number of C-stores operated by the majors since three companies with extensive networks of C-stores declined to disclose the number of units they own.

Dollars Per Day Survey

Company	# of Gasoline Units	Gal. Sold in 1984 (Add 000)	Avg. Gal. Sold per Day per Unit	Gasoline Margin per Gal.	% of Sales Contributed by Gasoline
Shop & Go	329	130,000	1,123	N/A	43.4%
Circle K	1,719	548,200	940	N/A	35.2
Nat'l Convenience	824	385,100	1,319	8.0¢	42.4
Southland	3,173	1,454,000	1,286	7.0¢	24.8
Casey's	482	202,024	1,218	9.2¢	61.3
Sunshine Jr.	319	73,286	631	N/A	49.9
Munford	440	343,995	2,093	N/A	N/A
Dairy Mart	35	12,585	1,091	6.4¢	14.9
CONNA	271	134,500	1,371	N/A	35.7
Totals	**7,592**	**3,281,690**	**1,227**	**N/A**	**N/A**

Ten-year Box Score on Growth

Survey Year	No. of Stores	No. with Gasoline Units	Gasoline Units Added in Year	% of Stores with Gasoline Units
1985 (a)	13,964	7,592	527	54.36%
1984	13,883	7,378	990	53.14
1983	12,276	6,029	480	49.11
1982	12,400	5,799	393	46.76
1981	12,445	5,533	442	44.45
1980	13,167	5,630	447	42.76
1979	12,920	5,153	569	39.88
1978	12,597	4,584	792	36.38
1977	11,953	2,792	959	31.72
1976	11,356	2,786	557	24.53

(a) Nine chains in this survey versus 10 in 1984-1983 and 11 chains in previous studies.

Source: 15th annual Dollars Per Day Survey, John F. Roscoe, March 1986.

Government Franchise Projections

	1986	1985	1984	Percent Changes '85-86	1984-85
Total number of establishments:	16,120	15,314	14,960	5.3%	2.4%
Company-owned	9,204	8,796	8,507	4.6	3.4
Franchisee-owned	6,916	6,518	6,453	6.1	1.0
Total sales of products and services: ($000)	$12,369,139	$10,911,314	$10,292,508	13.3	6.0
Company-owned	7,731,205	6,685,410	6,304,904	15.6	6.0
Franchisee-owned	4,631,934	4,225,904	3,985,604	9.6	6.0

Distribution by Establishments—1984

Size Groups	Franchising Companies Number	Establishments Number	Establishments %	Sales ($000)	Sales %
1001 and Greater	4	11,558	77.3	$ 8,756,806	85.1
501 - 1000 151 - 500	7	2,912	19.5	1,276,145	12.4
51 - 150	5	359	2.4	192,613	1.9
11 - 50	5	112	0.7	56,834	0.5
0 - 10	3	19	0.1	10,110	0.1
Total	**24**	**14,950**	**100.0**	**10,292,508**	**100.0**

Source: "Franchising in the Economy, 1984-86," U.S. Department of Commerce, February 1986.

C-store Margins Improve Again

Another perspective on activity in the C-store/gasoline industry is shown in the 1985 "State of the Convenience Store Industry" survey by the National Assn. of Convenience Stores (NACS).

According to the NACS study, the nation's 57,300 C-stores increased sales 9.7% to $47.5 billion from 1983 to 1984. The rate of increase, although substantial, did not keep up with previous years' increases (See chart at right) due to falling prices and demand for gasoline, NACS says. "Following increases ranging from 27% to 58% in the preceding four years, the rate of increase in convenience store gasoline sales fell to 3.2%," the report says.

Still, gasoline keeps taking a bigger share of total C-store dollar volume, having increased the percentage of total sales from 27.7% in 1980 to 34.3% in 1984.

The average store netted a pre-tax profit of $24,800 in 1984, an increase of 41.7% over 1983 and 71% over the 1982 level. Interestingly, but not surprisingly, non-gasoline sales generate much higher gross margins than gasoline (See table).

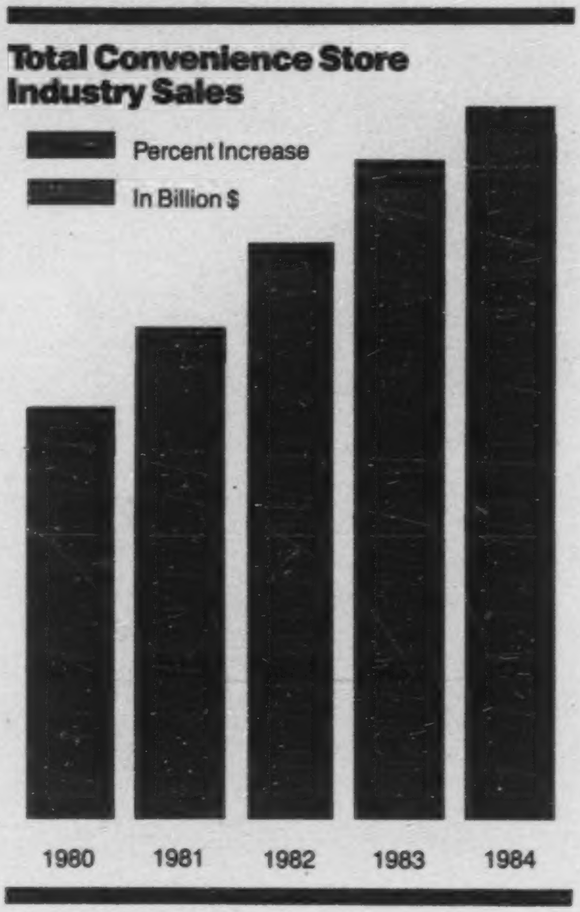
The investment costs for new C-stores are increasing too, the NACS survey shows (See table). A typical urban store cost almost $500,000 in 1984, including land, building, inventory, etc.

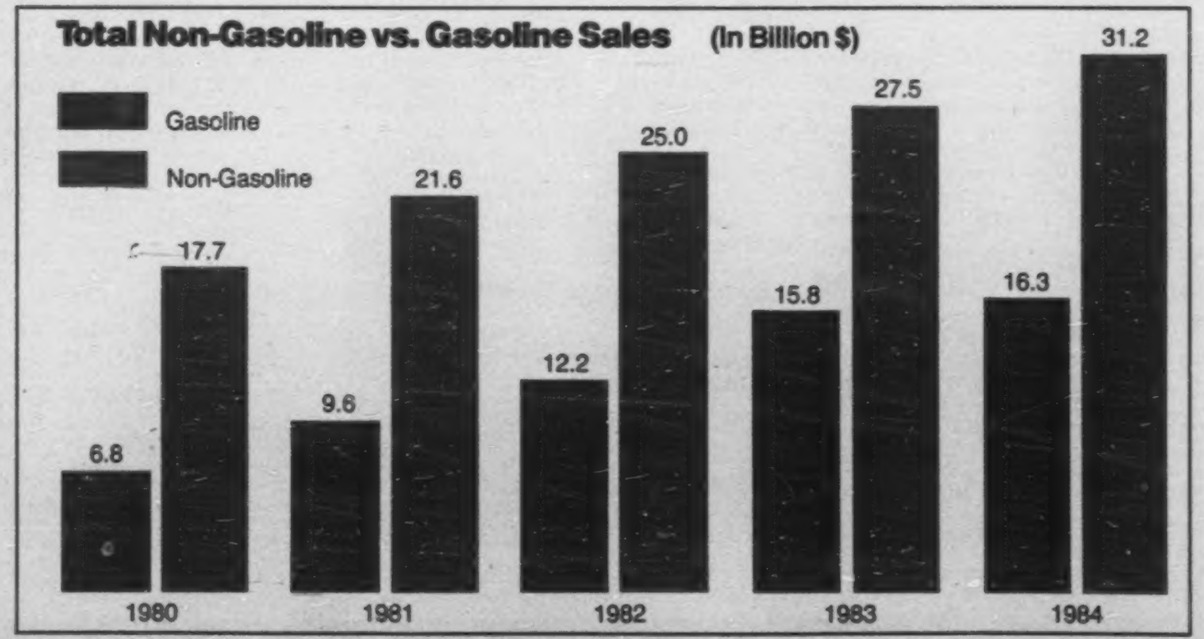
The average C-store/gasoline unit pumped 42,000 gal./month of gasoline in 1984.

C-store Gross Margin As a Percent of Sales

Survey Year	Gasoline Margin %	Non-Gasoline Margin %	Average Margin %
1984	6.0%	32.0%	21.6%
1983	5.0	31.5	20.7
1982	4.5	30.1	20.8
1981	4.2	31.8	22.9
1980	6.0	30.2	22.8

Source: NACS "1985 State of the Convenience Store Industry" survey.





C-Store Unit Growth Analysis

	1980	1981	1982	1983	1984
New Stores Opened	11.9%	11.2%	10.2%	7.6%	7.3%
Acquired Stores	1.8%	1.7%	0.8%	2.7%	2.9%
	13.7%	12.9%	11.0%	10.3%	10.2%
Stores Sold or Closed	(3.8%)	(4.3%)	(4.1%)	(4.1%)	(4.8%)
Net Increase in Stores	9.9%	8.6%	6.9%	6.2%	5.4%
Actual Number of Stores (000's)	44.1	47.9	51.2	54.4	57.3

Source: NACS "1985 State of the Convenience Store Industry" survey.

Still another "State of the Industry" survey, this one by *Convenience Store Merchandiser*, an industry publication, charts C-store activity according to independent operations (single stores, including franchisees) and chain outlets.

The tables below highlight average sales per store for both types, plus the average sale per customer. Note that in both cases, total sales are higher for stores with gasoline, but in-store sales typically are higher in non-gasoline operations.

Other data included in the survey show average inventory turns in 1985 of 13.5 for chains and 11.8 for independent stores. Average store manager salary is $16,272 for chains and $15,280 for independents. Pre-tax profits as a percentage of gross sales is 3.37% for chains and 6.9% for independents.

Average Sales per C-store—1985

(Add 000)

	Independent Stores			Chain Stores		
	In-Store Sales	Gasoline Sales	Total Sales	In-Store Sales	Gasoline Sales	Total Sales
Sell Gasoline	$346	$592	$938	$392	$601	$993
No Gasoline	482	—	482	591	—	591
Average (All Stores)	417	592	705	433	460	893

Average C-store Sale Per Customer—1985

	Independent Stores		Chain Stores	
	In-Store Sale	Gasoline Sale	In-Store Sale	Gasoline Sale
Sell Gasoline	$2.80	$7.74	$2.18	$6.62
No Gasoline	3.28	—	5.17	—
Average (All Stores)	3.08	7.78	2.84	6.62

Source: "1985 State of the Industry Report" for independent and chain stores, *Convenience Store Merchandiser.*

Comparing Chain C-store Product Categories

Product Category	Average Gross Profit Margin	Percent of In-Store Sales	
		Chains Selling Gasoline	Chains Not Selling Gasoline
Gasoline	6.1%	—	—
Tobacco	23.7	18.4%	16.6%
Beer & Wine	25.9	14.2	9.9
Cooler Soft Drinks	31.6	12.0	10.6
Fountain Soft Drinks	57.1	4.1	1.5
Fast Foods/Food Service	46.5	7.8	2.2
Deli	43.3	1.6	2.9
Milk & Dairy	18.8	8.1	10.3
Bake Off	35.8	1.4	.5
Ice Cream	36.1	2.3	6.6
Groceries	30.4	11.2	12.3
Candy	36.8	5.0	4.5
Magazines & Paperbacks	21.7	2.5	3.8
General Merchandise	35.8	2.7	7.6
HBA	36.0	3.4	1.5
Snacks	33.1	3.5	3.8
Produce	24.5	.2	.9
Frozen Foods	35.6	1.1	1.1
Video Products	22.4	.4	.5
Lottery Tickets	6.0	.4	2.8

Source: "1985 State of the Industry Report" for independent and chain stores, *Convenience Store Merchandiser.*

Average Investment per New C-store

		1980	1981	1982 (a)		1983		1984	
				Urban	Rural	Urban	Rural	Urban	Rural
	Land	$ 88,100	$ 89,900	$133,400	$ 57,100	$147,900	$ 89,800	$170,200	$108,700
	Building	98,200	101,800	101,400	91,600	125,300	101,700	149,800	106,900
Equipment	Fast Food	8,100	7,200	17,900	11,000	14,200	7,700	14,100	9,100
	Gas	36,700	48,800	46,300	34,600	59,900	50,000	55,100	49,400
	Non-Gas	39,200	51,800	70,700	38,800	53,600	48,000	61,000	39,300
	Total	**84,000**	**107,800**	**134,900**	**84,400**	**127,700**	**105,700**	**130,200**	**97,800**
	Inventory	42,000	42,300	47,500	39,100	50,000	45,000	46,000	42,800
	Other	3,200	1,300	—	—	—	—	—	—
	Total Investment	**$315,500**	**$343,100**	**$417,200**	**$272,200**	**$450,900**	**$342,200**	**$496,200**	**$356,200**

(a) Urban/rural investment breakout data was started in 1982.
Source: NACS "1985 State of the Convenience Store Industry" survey.

Chevron Retains Gasoline Supremacy

Chevron continued to dominate gasoline marketing in 1985, even though it lost some gallonage in the process of complying with government-mandated spinoffs in selected markets.

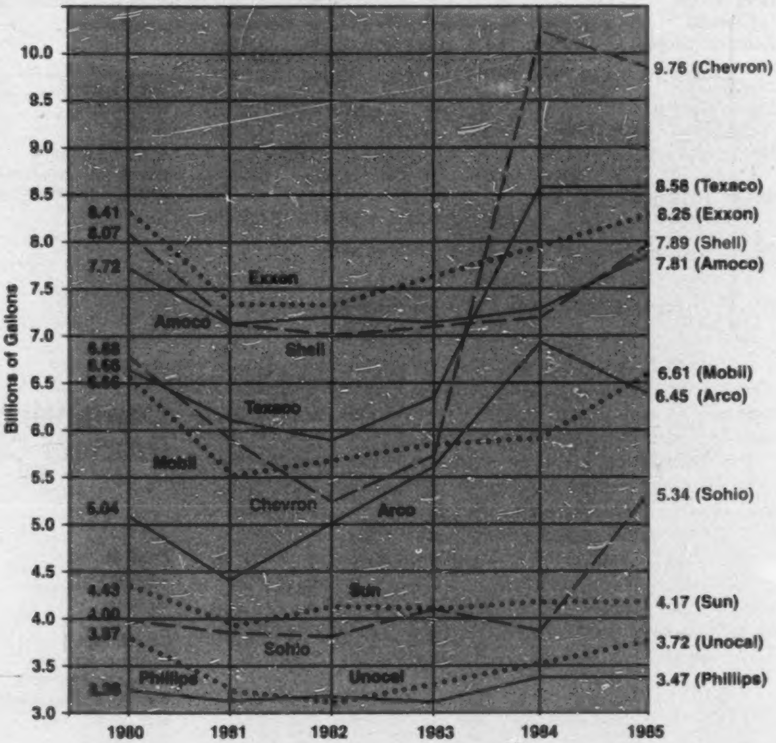
Texaco, Exxon, Shell and Amoco ranked next in that order. The only significant change here was that Shell, with an 8% increase in sales in 1985, squeezed past Amoco, which had a 6% upturn. But Shell and Amoco have been playing this sort of a game in recent years so that this was not necessarily surprising or momentous.

An eye-opener of significance was Chevron's restatement of its 1984 gallonage, moving it up from 9.6 billion gal. to 10.3 billion gal. This was the first time that any company ever exceeded 10 billion gal. of gasoline in any year. The increase reflected a re-evaluation of the additional gallonage coming from the Gulf acquisition. It also reflected the fact that Chevron now says its gasoline sales in 1984 and 1985 included some avgas and other petroleum products, which had not been specified in 1984.

The Gulf acquisition gave Chevron an 82% increase in gross gallonage in 1984 but the spinoff of some marketing facilities in the Southeast in 1985 gave it a 5.6% decrease in volume last year. Chevron is in the process of selling its outlets and facilities in the Northeast to Cumberland Farms, of Canton, Mass., but how this is going to affect its gallonage in 1986 is yet to be determined.

THE BIG PICTURE

In Billions of Gallons . . .



Texaco, with only a minor loss in volume in 1985, held on to the second place in marketshare and Exxon retained its No. 3 position. Mobil, with a 12.7% increase in volume in 1985 skipped past Atlantic Richfield, which began a historic withdrawal from Eastern markets late last summer and a return to the West as a five-state regional marketer. At that, however, its 1985 volume was not that far under its 1984 gallonage, which had been restated to reflect the continuing changes in the corporate restructuring.

The *NPN* data for the top 11 companies are obtained from annual reports and private advisories and are the total gasoline volumes of each company. The totals differ from the Federal Highway Administration compilations which are based on the tax reports of wholesalers, suppliers and states revenue offices. The total sales market of 108 billion gal. for 1985 is an estimate by *NPN* based on FHA data for the first 11 months of the year and a

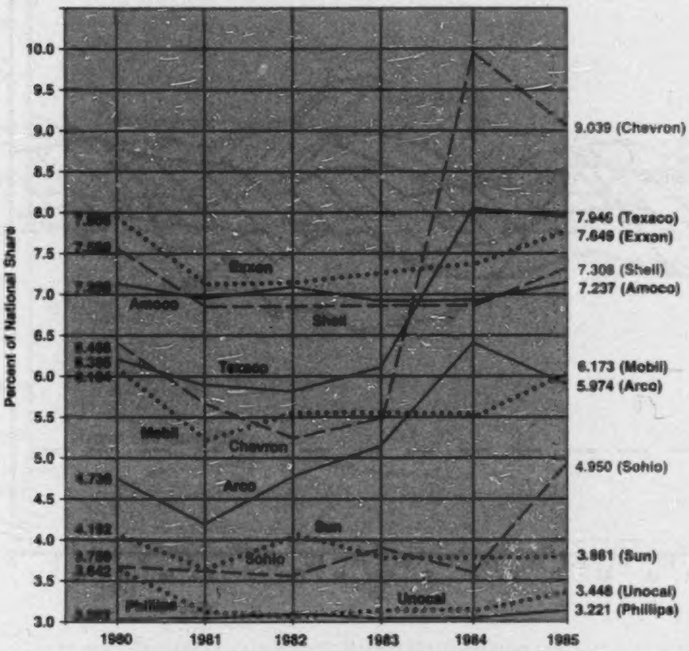
The Gasoline Market: By Gross Gallonage and Relative Shares (a)

	1985 (Total Sales Equal 108,032,538,600 gal.)				1984 (Total Sales Equal 106,331,239,000 gal.)			
	Rank	% Mkt. Shr.	(Add 000) Gallonage	% Chng. '85 vs. '84	Rank	% Mkt. Shr.	(Add 000) Gallonage	% Chng. '84 vs. '83
Chevron	1	9.039%	9,765,210	(5.6%)	1	9.732%	10,347,750	82.4%
Texaco	2	7.946	8,584,800	(.04)	2	8.146	8,661,450	34.2
Exxon	3	7.649	8,262,870	4.5	3	7.410	7,879,620	1.8
Shell	4	7.308	7,894,950	8.0	5	6.877	7,312,410	2.6
Amoco	5	7.237	7,818,300	6.0	4	6.935	7,373,730	2.6
Mobil	6	6.173	6,668,500	12.7	7	5.565	5,917,380	—
Arco	7	5.974	6,453,930	(6.5)	6	6.487	6,898,500	22.0
Sohio	8	4.950	5,347,104	35.7	9	3.705	6,147,330	50.2
Sun	9	3.861	4,171,293	1.2	8	3.878	4,123,770	2.3
Unocal	10	3.448	3,725,190	4.7	10	3.345	3,556,560	2.3
Phillips	11	3.221	3,479,910	4.1	11	3.143	3,341,940	2.8
Gulf (b)	—	—	—	—	—	—	—	—
Total		61.3 %	66,172,057	(N.C.)		64.5 %	68,601,750	(N.C.)

(a) The gross gallonage is that reported by the various companies in their annual reports as having been manufactured and sold by them during the calendar year. Where most companies are concerned, it is motor fuel. But some companies concede the gross gallonage also may include some other petroleum products such as avgas, naphtha, etc. These additions are not considered overly significant, however. Some companies restated their 1984 totals, notably Chevron and Arco; Chevron to better reflect the acquisition of Gulf, and Arco to reflect the reorganization initiated in 1985 in withdrawing from eastern markets and resuming a role as a regional marketer in the West only.

(b) Gulf was acquired by Chevron in early-1984, and its 1984 gallonage is included in Chevron's. Data for 1983, 1982 and 1981 is also shown to make the tabulation consistent.

. . . and by Market Shares



Gasoline Consumption: On- Vs. Off-Highway Use

(billions of gal.)

Year	Highway Use	Off-Highway Use	Total Use	% Chng. Annually	% Off-Highway Use
1985(a)	103.4	3.9	107.3	1.9%	3.6%
1984	101.4	3.9	105.3	2.6	3.7
1983	99.4	3.2	102.6	.8	3.1
1982	98.5	3.3	101.8	(1.3)	3.2
1981	99.6	3.5	103.1	(1.6)	3.4
1980	101.2	3.6	104.8	(6.3)	3.4
1979	108.1	3.7	111.8	(3.5)	3.3
1978(b)	112.2	3.6	115.8	—	3.1

(a) Estimated by *NPN* on basis of Federal Highway Administration data.
(b) Peak year of consumption.
Source: Federal Highway Administration, "Highway Statistics Annual." The totals in this table may vary slightly from other basic FHA tables because of some exclusions and additions.

projection for the 12th month.

The collapse of the crude oil market in late 1985 and the downsweep of retail prices in early 1986 were expected to have dramatic impact on gasoline consumption in the late-spring and traditional summer driving periods. How much was anybody's guess.

In the first quarter of 1986, for example, American Petroleum Institute noted that the amount of gasoline supplied equalled 6.7 million b/d, or 3.2% more than during the comparable period of 1985. March gasoline deliveries were up 6%.

It was anticipated by many analysts that gasoline demand would continue to rise in the second quarter and that the third quarter (which takes in most of the summer driving period) could literally explode, possibly to record-breaking proportions.

One factor heightening the possibility was the increased international tension in the first half of 1986, with many European-bound tourists cancelling their summertime reservations abroad and opting instead for a vacation at home instead of overseas.

It should be noted, too, that most of the companies that cut back drastically on capital spending programs for 1986 used gentle touches on marketing facilities. In other words, it was obvious that they anticipated tougher competition this summer and minimized the net effect on marketing vis a vis exploration and production.

Big changes in market shares could take place on the Atlantic seaboard this summer. Arco, Chevron and Getty are out of the Northeast now, and have been replaced by hard-nosed independents like Getty Petroleum (formerly Powertest), Cumberland Farms and entrepreneur John Deuss's new Atlantic Petroleum Co. Shell has jazzed up its Northeast role with 450 stations it bought from Arco.

1983
(Total Sales Equal 104,231,431,000 gal.)

Rank	% Mkt. Shr.	(Add 000) Gallonage	% Chng. '83 vs. '82
7	5.442%	5,672,100	4.5%
4	6.191	6,453,930	8.5
1	7.427	7,741,650	4.8
2	6.897	7,189,770	(1.7)
3	6.839	7,128,450	1.3
8	5.427	5,656,770	13.9
5	5.677	5,917,300	2.1
10	3.868	4,031,790	(4.4)
9	3.926	4,093,110	9.4
12	3.336	3,476,844	6.9
11	3.118	3,249,960	(1.9)
6	5.574	5,810,070	(4.8)
	63.73 %	**66,424,840**	**3.1%**

1982
(Total Sales Equal 102,747,065,000 gal.)

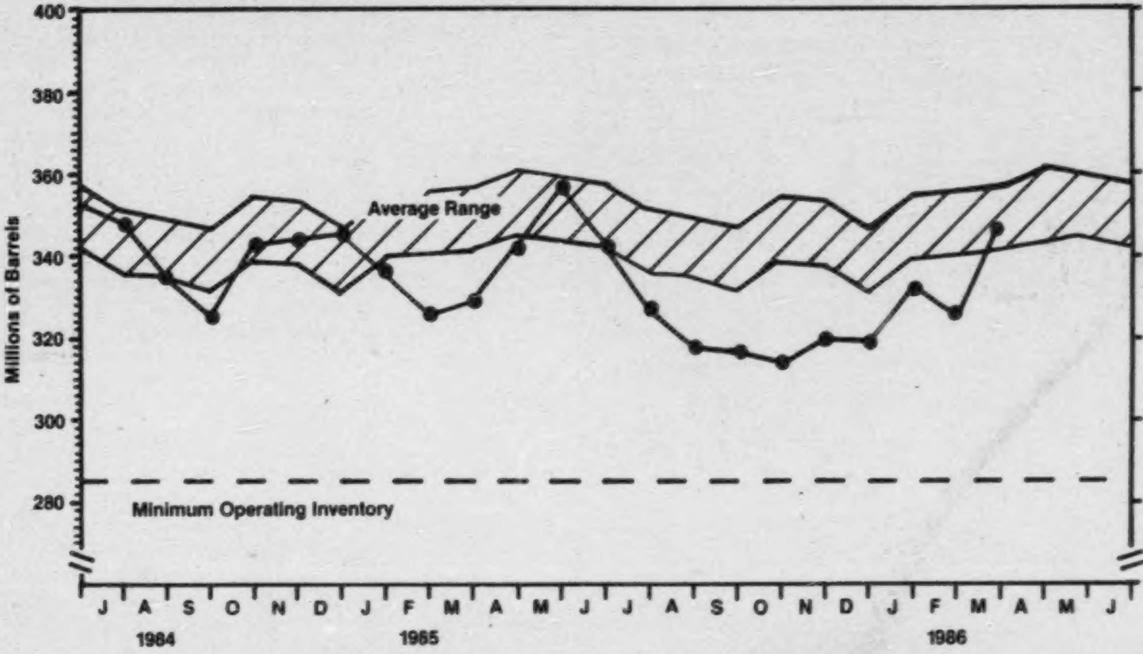
Rank	% Mkt. Shr.	(Add 000) Gallonage	% Chng. '82 vs. '81
7	5.282%	5,426,820	(8.5%)
5	5.789	5,946,040	(4.0)
1	7.192	7,389,060	.06
2	7.115	7,312,410	.06
3	6.848	7,036,470	(1.5)
8	4.834	4,916,920	11.0
6	5.640	5,794,740	4.1
9	4.103	4,215,750	7.4
10	3.641	3,740,520	(.08)
11	3.165	3,251,493	3.3
12	3.223	3,311,280	(2.6)
4	5.940	6,103,340	(.07)
	62.72 %	**64,446,843**	**.12**

1981
(Total Sales Equal 104,150,406,000 gal.)

Rank	% Mkt. Shr.	(Add 000) Gallonage	% Chng. '81 vs. '80
6	5.697%	5,933,710	(13.8%)
4	5.947	6,193,320	(7.1)
1	7.050	7,343,070	(12.8)
2	6.977	7,266,420	(6.0)
3	6.918	7,205,100	(10.8)
8	4.298	4,476,360	(11.2)
7	5.343	5,564,790	(15.2)
9	3.766	3,924,480	(11.4)
10	3.261	3,771,180	(2.3)
12	3.204	3,337,341	(13.9)
11	3.076	3,203,970	(2.3)
5	5.902	6,147,330	(3.1)
	61.80 %	**64,367,071**	**(9.7)**

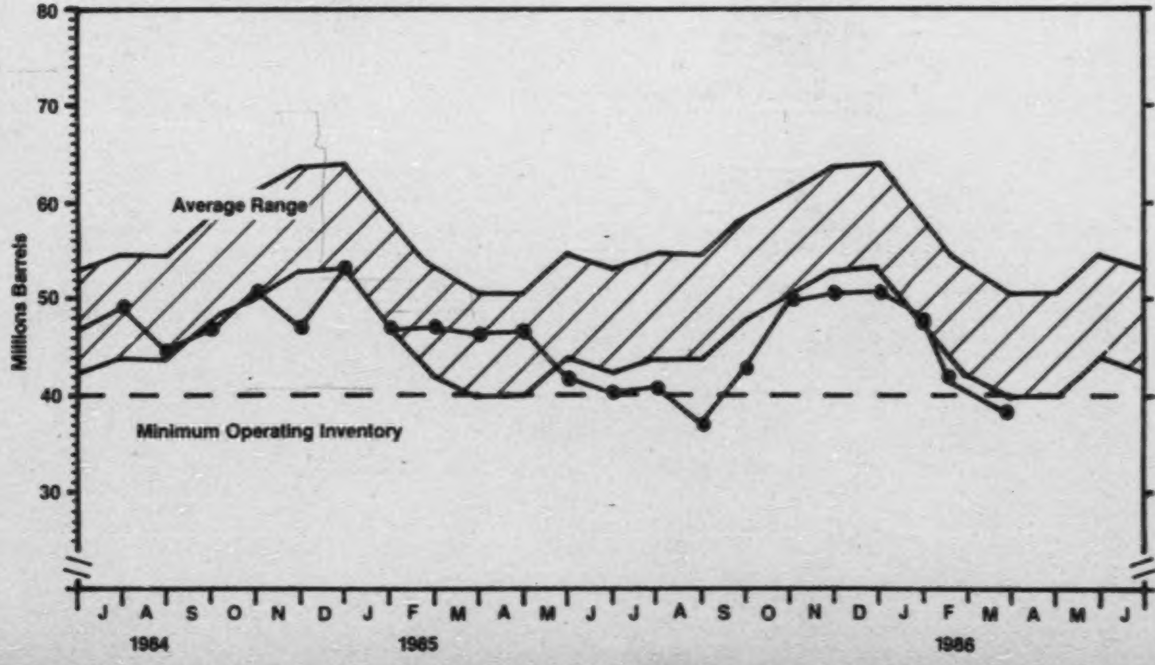
(N.C.): The totals are not comparable due to the uneveness of the additions and spinoffs of companies like Gulf and Getty.
Sources: Oil company annual reports and statistical supplements, plus special direct reports to *NPN*. National gallonage totals for each year are those of Federal Highway Administration except 1985 which is FHA data for 11 months and an *NPN* estimate for the balance. FHA data is for all uses—on- and off-highway. Since the off-highway consumption has averaged only 3.25% over the past six years, it is not considered significant in the market share ratios.

Stocks of Crude Oil, U.S. Total
(Millions of bbl.)

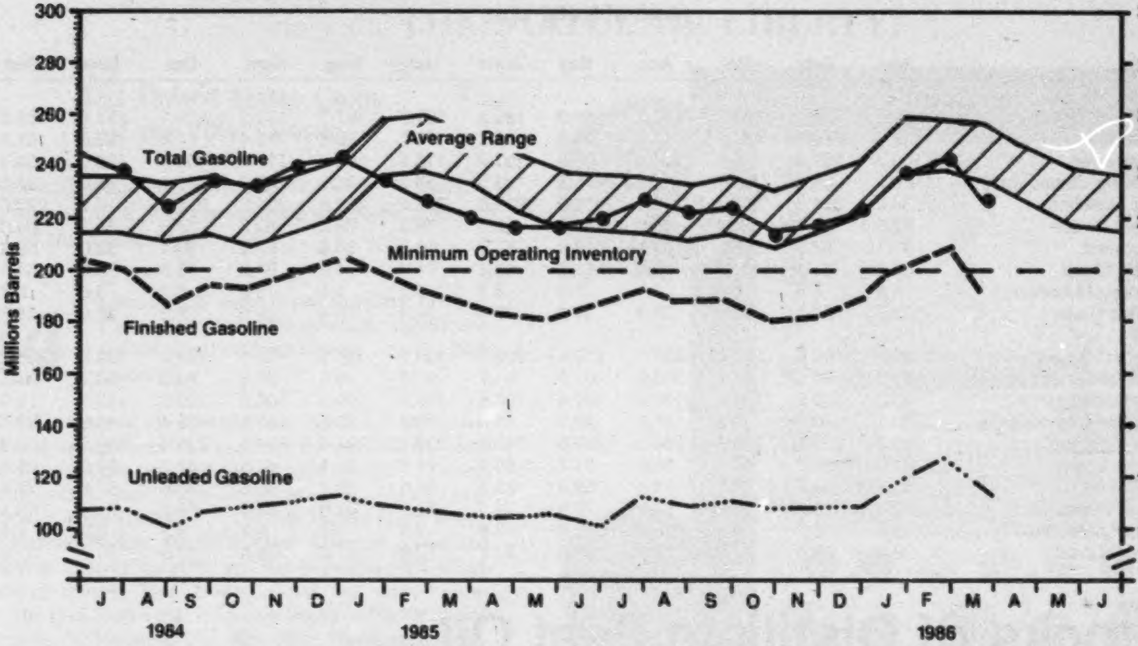


Crude Stocks at Primary Levels include those held at refineries, in pipelines, and in lease tanks, but do not include those held in the Strategic Petroleum Reserve operated by the U.S. Government. The average level and width of average range are based on three years of monthly data for the period of July 1982 and June 1985. The seasonal pattern is based on seven years of monthly data. National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time. NPC revised its minimum operating levels in late-1983.
Source: Department of Energy, Weekly Statistical Reports, April 1986.

Stocks of Residual Fuel Oil, U.S. Total
(Millions of bbl.)

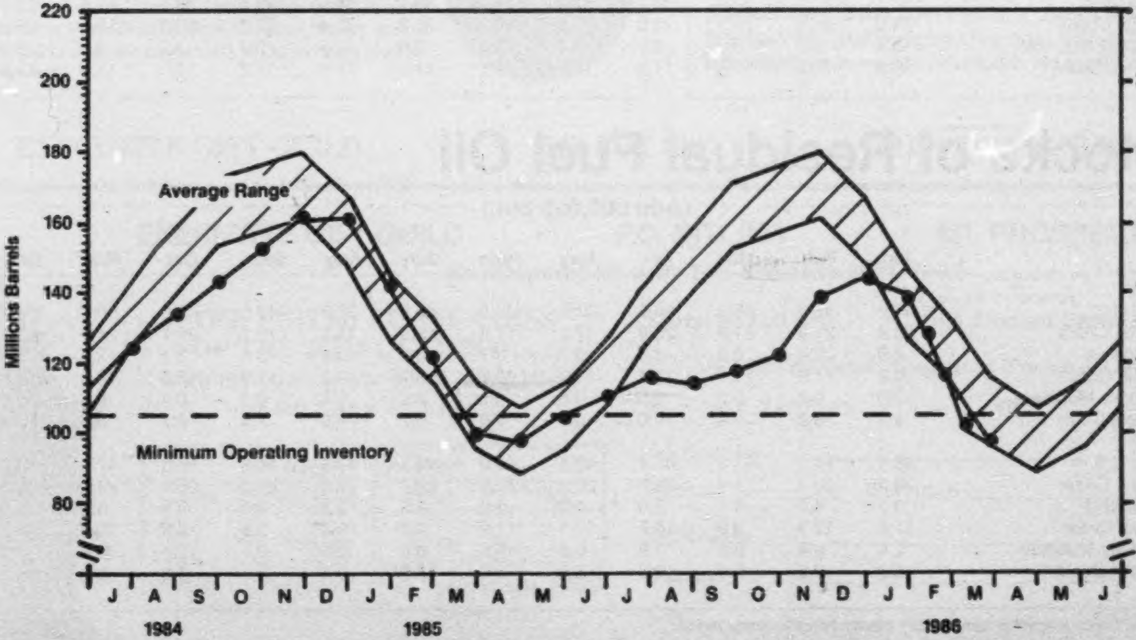


Stocks of Motor Gasoline, U.S. Total (Millions of bbl.)



Product stocks at the Primary Level include those held at refineries, in pipelines, and at major bulk terminals. They do not include stocks held in secondary distribution facilities such as jobber tanks, consumer tanks, and/or barges designed for consumer markets. The average level and width of average range are based on three years of monthly data for the period of July 1982 through June 1985. The seasonal pattern is based on seven years of monthly data. National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time. NPC revised its minimum operating levels in late-1983.
Source: Energy Information Administration, Weekly Statistical Reports, April 1986.

Stocks of Distillate Fuel Oil, U.S. Total (Millions of bbl.)



Stocks of Motor Gasoline

(Add 000,000 bbl.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1985												
Finished Gasoline	197.8	190.0	186.4	182.0	181.3	186.3	191.7	187.7	187.2	179.1	181.8	189.8
Leaded	88.5	82.6	81.3	77.7	75.6	85.2	79.8	78.8	76.4	71.1	73.8	81.4
Unleaded	109.3	107.4	105.1	104.4	105.6	101.2	111.9	108.9	110.8	108.0	108.0	108.4
Blending Components	36.2	36.8	33.7	34.5	35.3	33.5	35.9	35.1	37.0	35.1	35.0	33.2
Total Gasoline	234.0	226.8	220.1	216.6	216.6	219.8	227.6	222.8	224.2	214.3	216.8	223.0
East Coast	62.3	60.7	61.4	60.0	60.8	62.6	66.3	62.2	60.3	56.5	64.7	64.9
Midwest	71.1	67.5	66.1	60.4	55.3	57.9	60.6	64.8	67.3	59.1	58.0	59.2
Gulf Coast	59.7	61.1	57.3	60.4	63.2	62.2	64.8	61.9	61.2	63.5	60.8	64.1
Rocky Mountain	8.5	8.5	8.2	7.1	7.1	6.7	5.5	5.4	6.0	6.3	6.6	6.8
West Coast	32.5	29.1	27.2	28.8	30.2	30.4	30.4	28.4	29.5	28.8	26.8	28.0
1984												
Finished Gasoline	185.5	196.6	202.1	207.1	210.4	204.1	199.7	185.9	194.1	193.0	198.5	205.2
Leaded	92.3	96.5	97.7	100.8	101.0	96.7	91.8	85.4	87.5	84.0	88.4	92.3
Unleaded	93.3	100.2	104.4	106.4	109.4	107.5	107.9	100.5	106.6	109.0	110.1	112.9
Blending Components	40.1	40.5	40.5	40.8	42.2	41.4	38.4	38.5	40.0	39.4	41.6	38.1
Total Gasoline	225.7	237.1	242.6	248.0	252.6	245.5	238.1	224.4	234.1	232.4	240.1	243.3
East Coast	61.8	65.2	65.3	66.9	71.1	69.4	71.8	65.4	64.8	63.2	63.5	68.1
Midwest	63.2	68.4	70.6	71.4	68.3	65.5	64.6	62.7	66.8	65.5	67.6	72.4
Gulf Coast	62.4	66.1	70.9	72.5	72.9	70.9	65.1	62.8	69.5	69.6	71.4	63.1
Rocky Mountain	8.4	8.7	9.0	8.7	8.8	7.9	7.5	6.4	6.2	6.3	6.9	7.9
West Coast	29.9	28.6	26.6	28.5	31.5	31.7	29.0	27.0	26.8	27.9	30.7	31.8

Stocks of Distillate Fuel Oil

(Add 000,000 bbl.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1985												
Total U.S.	141.8	121.5	99.4	97.1	104.6	110.0	115.5	113.7	117.1	121.7	139.3	143.9
East Coast	55.6	43.4	32.6	31.3	33.6	34.3	38.8	41.0	47.1	50.5	62.0	58.8
Midwest	44.3	40.2	32.2	29.4	30.3	32.6	32.7	32.4	32.7	32.0	33.7	37.2
Gulf Coast	27.4	23.9	21.3	24.2	27.2	28.2	28.2	25.9	24.4	27.5	30.0	32.9
Rocky Mountain	3.7	3.5	2.9	2.3	2.7	3.1	3.1	2.9	2.6	2.2	2.4	2.9
West Coast	10.7	10.5	10.4	9.9	10.9	11.9	12.8	11.5	10.3	9.5	11.1	12.1
1984												
Total U.S.	119.3	132.2	109.6	97.7	98.1	112.8	124.4	133.3	142.9	152.2	161.0	161.1
East Coast	43.3	54.4	37.3	29.8	32.7	40.0	45.3	49.1	57.5	71.7	74.9	72.9
Midwest	37.1	37.0	33.5	30.1	27.0	31.6	36.1	39.3	38.6	36.4	37.6	43.7
Gulf Coast	24.6	26.8	24.1	23.0	23.5	26.1	28.2	30.4	32.3	29.9	33.1	28.8
Rocky Mountain	3.4	3.2	3.3	3.2	3.4	3.5	3.6	3.5	3.3	3.2	3.5	3.7
West Coast	10.8	10.8	11.3	11.5	11.5	11.6	11.3	11.0	11.2	11.0	11.9	11.9

Stocks of Residual Fuel Oil

(Add 000,000 bbl.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1985												
Total U.S.	46.8	47.0	46.3	46.6	41.8	40.2	40.8	37.0	42.8	49.6	50.6	50.7
East Coast	23.4	21.8	21.8	20.8	17.7	17.4	18.5	14.6	19.1	24.7	24.7	23.3
Midwest	3.0	3.4	3.5	3.6	3.7	3.7	3.5	3.8	3.4	3.1	3.8	4.0
Gulf Coast	10.7	11.6	11.0	11.7	11.7	10.7	9.7	9.2	11.9	12.8	12.3	12.6
Rocky Mountain	0.5	0.5	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.5
West Coast	9.1	9.6	9.4	10.0	8.2	7.9	8.7	9.0	7.8	8.7	9.3	10.3
1984												
Total U.S.	45.1	57.1	47.9	47.4	46.4	46.9	49.2	44.6	46.8	50.8	47.0	53.0
East Coast	20.4	30.4	24.4	22.7	23.1	22.0	24.7	21.9	25.0	26.8	24.0	28.9
Midwest	3.7	4.2	4.1	3.6	4.0	3.6	3.5	3.6	3.5	3.8	3.7	3.5
Gulf Coast	11.8	12.9	9.9	10.9	10.1	11.2	9.8	9.2	9.8	10.2	10.4	11.2
Rocky Mountain	0.4	0.4	0.5	0.6	0.6	0.5	0.6	0.5	0.5	0.7	0.6	0.6
West Coast	8.8	9.3	9.0	9.6	8.8	9.6	10.7	9.4	8.1	9.3	8.3	8.7

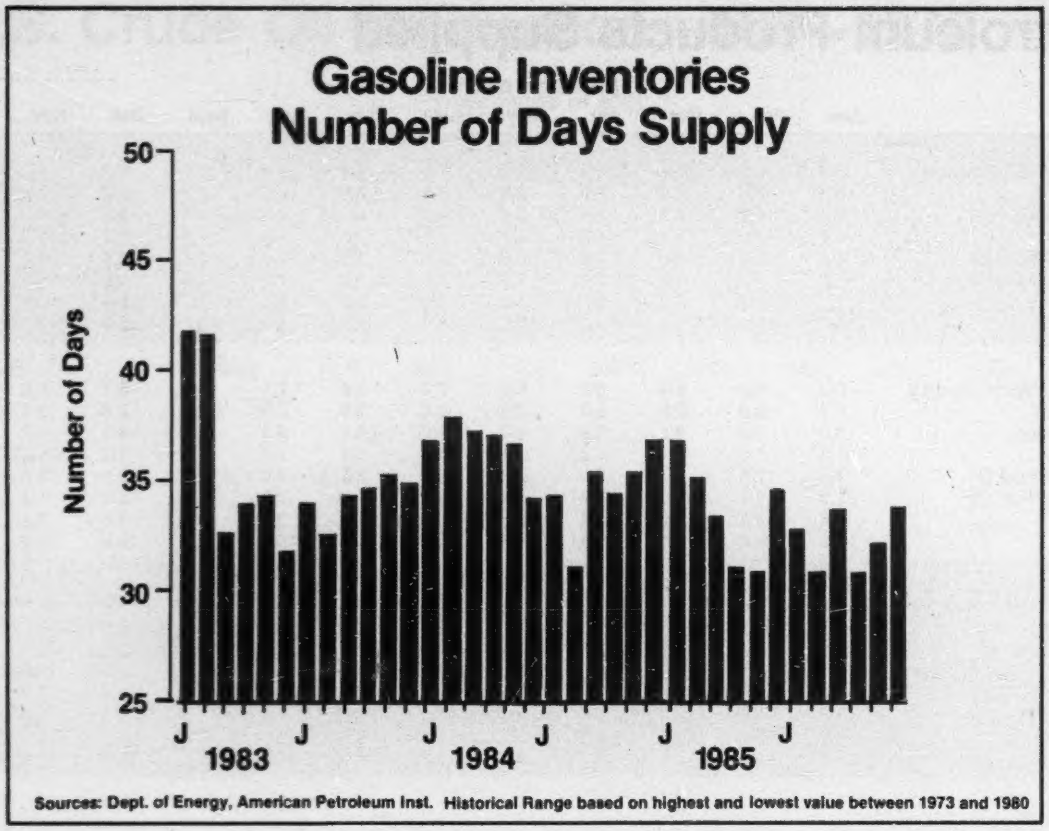
Source: Energy Information Administration, Weekly Petroleum Status Reports.

Refinery and Bulk Terminal Stocks By States and PAD Regions—1985

(Add 000 bbl.)

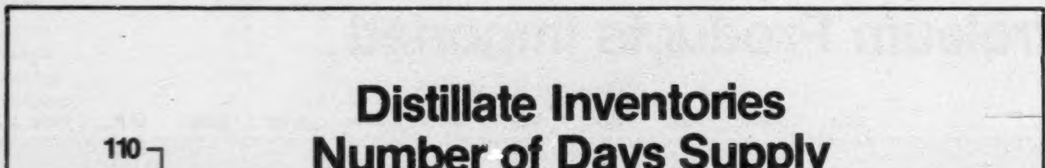
State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosine	Distillate Fuel Oil	Residual Fuel Oil
PAD District 1 Total	**18,866**	**20,267**	**3,348**	**49,238**	**23,309**
Connecticut	399	692	79	2,089	792
Delaware, D.C., Maryland	565	1,422	205	3,666	1,815
Florida	2,463	4,600	257	2,097	1,291
Georgia	1,449	1,693	65	1,464	229
Maine	378	597	88	1,666	370
Massachusetts	968	965	68	3,183	846
New Hampshire, Vermont	68	124	w	711	100
New Jersey	3,780	5,930	394	13,797	9,010
New York	2,466	2,974	680	6,788	4,721
North Carolina	1,376	1,527	357	1,821	453
Pennsylvania	2,465	3,428	667	6,094	1,648
Rhode Island	229	1,033	w	1,241	81
South Carolina	748	1,060	134	1,099	605
Virginia	1,335	2,066	248	3,340	1,239
West Virginia	177	156	21	182	109
PAD District 2 Total	**17,625**	**19,140**	**1,430**	**28,335**	**3,989**
Illinois	2,826	3,884	275	5,003	1,382
Indiana	1,682	2,169	220	4,589	473
Iowa	914	546	w	1,438	w
Kansas	1,425	1,129	45	1,743	98
Kentucky	650	798	49	1,337	264
Michigan	1,607	2,210	200	2,192	263
Minnesota	1,596	1,315	w	2,334	155
Missouri	706	689	w	988	w
Nebraska	409	196	0	495	0
North & South Dakota	392	413	0	1,035	w
Ohio	2,276	2,759	367	2,888	427
Oklahoma	1,094	896	108	1,703	244
Tennessee	986	1,087	22	948	243
Wisconsin	1,602	1,049	w	1,642	160
PAD District 3 Total	**13,144**	**15,910**	**1,405**	**22,852**	**12,569**
Alabama	762	820	38	943	241
Arkansas	119	270	w	215	22
Louisiana	2,273	3,311	701	5,035	5,016
Mississippi	1,043	1,101	12	2,099	453
New Mexico	260	181	w	229	3
Texas	8,687	10,227	647	14,331	6,834
PAD District 4 Total	**2,262**	**1,492**	**34**	**2,514**	**466**
Colorado	686	499	1	554	29
Idaho	179	80	0	160	0
Montana	543	351	w	632	82
Utah	434	212	1	587	228
Wyoming	420	350	w	581	127
PAD District 5 Total	**8,301**	**10,496**	**147**	**10,903**	**10,182**
Alaska	419	236	w	896	w
Arizona	318	341	w	294	0
California	4,601	6,894	91	6,601	7,426
Hawaii	174	277	0	327	w
Nevada	196	222	w	187	w
Oregon	881	897	w	1,058	102
Washington	1,712	1,629	w	1,540	1,348
U.S. Total	**60,198**	**75,305**	**6,364**	**113,842**	**50,515**

W = Withheld to avoid disclosure of individual company data.
Source: Energy Information Administration, Petroleum Supply Monthly, December 1985.



Gasoline Inventories Number of Days Supply

Sources: Dept. of Energy, American Petroleum Inst. Historical Range based on highest and lowest value between 1973 and 1980



Distillate Inventories Number of Days Supply

Sources: Dept. of Energy, American Petroleum Inst. Historical Range based on highest and lowest value between 1973 and 1980

Petroleum Products Supplied

(Millions of b/d)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1985												
Finished Motor Gasoline	6.3	6.5	6.6	6.9	7.0	7.0	7.0	7.2	6.6	6.9	6.8	6.8
Leaded	2.3	2.5	2.4	2.6	2.6	2.5	2.5	2.5	2.3	2.4	2.3	2.2
Unleaded	4.0	4.0	4.2	4.4	4.4	4.5	4.5	4.8	4.4	4.5	4.5	4.5
Jet Fuel	1.2	1.1	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3
Distillate Fuel Oil	3.5	3.3	3.1	2.8	2.6	2.6	2.5	2.6	2.8	2.9	2.7	3.2
Residual Fuel Oil	1.5	1.3	1.3	1.1	1.3	1.0	1.0	1.1	1.0	1.0	1.2	1.4
Other	3.7	3.7	3.2	3.3	3.4	3.8	3.8	3.8	3.7	3.8	3.4	3.8
Total	16.1	16.0	15.3	15.3	15.5	15.6	15.5	16.0	15.1	15.9	15.4	16.5
1984												
Finished Motor Gasoline	6.3	6.2	6.5	6.7	6.9	7.1	6.8	7.1	6.6	6.7	6.8	6.6
Leaded	2.7	2.6	2.8	2.8	2.9	2.9	2.8	2.8	2.6	2.6	2.6	2.4
Unleaded	3.6	3.6	3.8	3.9	4.0	4.2	4.1	4.3	4.0	4.1	4.2	4.2
Jet Fuel	1.2	1.1	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2
Distillate Fuel Oil	3.5	2.6	3.3	2.9	2.8	2.6	2.5	2.6	2.7	2.8	2.8	2.9
Residual Fuel Oil	2.0	1.7	1.6	1.4	1.2	1.3	1.2	1.3	1.2	1.1	1.4	1.2
Other	3.8	3.5	3.5	3.4	3.5	3.6	3.7	3.9	3.6	3.8	3.5	3.5
Total	16.8	15.4	16.1	15.6	15.6	15.7	15.5	16.1	15.2	15.6	15.6	15.4
1983												
Finished Motor Gasoline	6.1	6.0	6.8	6.5	6.6	7.0	6.8	[illegible]	6.7	6.6	6.6	6.3
Leaded	2.7	2.7	3.2	3.0	3.1	3.2	3.0	3.1	3.0	2.9	2.9	2.3
Unleaded	3.4	3.3	3.6	3.5	3.6	3.8	3.7	3.8	3.7	3.7	3.7	4.0
Jet Fuel	1.0	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0	1.2
Distillate Fuel Oil	2.8	2.8	2.9	2.7	2.4	2.5	2.3	2.5	2.6	2.6	2.9	3.4
Residual Fuel Oil	1.6	1.6	1.6	1.4	1.3	1.3	1.3	1.4	1.4	1.2	1.4	1.9
Other	3.3	3.4	3.2	3.1	3.2	3.4	3.6	3.6	3.8	3.5	3.7	3.7
Total	14.7	14.6	15.5	14.7	14.5	15.3	15.0	15.5	15.5	15.0	15.5	16.7

Petroleum Products Imported

(Thousands of b/d)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1985												
Total Motor Gasoline	252	454	547	543	568	425	503	345	353	379	483	455
Leaded	75	109	210	170	136	197	75	55	62	131	109	140
Unleaded	128	238	263	305	350	188	351	247	251	191	309	239
Blending Components	48	107	74	68	82	41	77	43	40	56	64	75
Jet Fuel	64	40	46	18	31	35	45	14	35	47	42	31
Distillate Fuel Oil	271	148	153	244	203	147	95	101	208	247	272	291
Residual Fuel Oil	594	614	496	422	505	426	431	386	537	509	623	613
Other Petroleum Products(a)	495	538	640	623	687	669	658	727	681	709	691	660
1984												
Total Motor Gasoline	281	358	453	404	465	367	330	323	426	436	378	357
Leaded	98	162	197	178	170	103	68	96	166	113	134	133
Unleaded	133	137	158	140	176	193	179	146	183	195	151	175
Blending Components	50	59	98	85	119	71	83	81	77	128	93	49
Jet Fuel	65	114	49	103	56	52	40	98	33	56	36	39
Distillate Fuel Oil	299	454	115	220	253	256	199	259	291	421	316	190
Residual Fuel Oil	1059	1151	636	651	565	685	597	572	606	461	585	627
Other Petroleum Products(a)	672	665	579	577	698	576	595	543	553	654	688	582
1983												
Total Motor Gasoline	190	199	244	300	330	319	347	296	321	367	320	284
Leaded	86	47	112	149	201	141	145	115	172	116	127	102
Unleaded	67	81	74	106	104	136	158	135	107	214	141	122
Blending Components	37	71	58	45	25	42	44	46	41	37	51	61
Jet Fuel	27	8	35	15	29	26	30	40	44	49	23	24
Distillate Fuel Oil	68	59	42	73	147	179	267	301	259	260	203	221
Residual Fuel Oil	691	647	686	753	738	677	684	739	706	636	780	643
Other Petroleum Products(a)	495	546	502	457	488	549	542	[illegible]	580	497	547	642

(a) Includes kerosine, unfinished oils, motor gasoline blending components, liquefied petroleum gas and other oils.
Source: Energy Information Administration, Weekly Status Reports.

U.S. Crude Oil Production—1984-1975

(Thousands of b/d)

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975
PAD District 1										
Florida	39.6	53.4	70.2	95.3	117.2	129.2	130.2	127.8	121.5	114.7
New York	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
Pennsylvania	11.7	11.7	11.7	10.2	7.2	7.9	7.9	7.4	8.3	9.0
Virginia	**	0.2	0.1	**	**	**	**	**	**	**
West Virginia	9.7	9.9	8.9	9.5	6.4	6.6	6.5	6.9	6.9	6.8
Total	**63.3**	**77.5**	**93.2**	**117.3**	**133.1**	**146.0**	**146.9**	**144.4**	**139.0**	**132.9**
PAD District 2										
Illinois	79.1	80.0	75.9	66.0	62.0	59.7	64.0	70.2	71.8	71.4
Indiana	15.1	14.6	15.2	12.9	13.6	12.9	12.8	14.6	12.7	12.7
Kansas	207.5	196.1	193.2	180.3	164.3	156.2	155.0	157.5	160.4	161.9
Kentucky	21.3	21.6	20.2	17.9	16.2	15.1	15.7	18.0	20.4	20.7
Michigan	83.7	86.9	86.2	89.5	97.8	95.5	95.0	90.3	83.1	66.9
Nebraska	17.7	17.5	18.8	18.3	17.0	16.6	16.1	16.4	16.9	16.8
North Dakota	144.3	138.9	129.5	124.4	110.2	84.7	68.0	63.8	59.4	56.0
Ohio	41.8	41.0	39.9	37.1	35.3	32.8	30.6	28.4	27.3	26.2
Oklahoma	461.3	434.5	434.6	422.1	410.2	393.6	412.2	428.4	441.0	446.9
South Dakota	3.7	3.2	3.2	2.7	2.1	2.3	2.4	1.7	1.2	1.3
Other (a)	3.3	3.6	3.7	3.2	2.4	1.9	1.8	2.4	1.8	2.0
Total	**1,078.8**	**1,037.9**	**1,020.4**	**974.4**	**931.1**	**871.3**	**873.6**	**891.7**	**896.0**	**882.8**
PAD District 3										
Alabama	54.3	51.4	54.8	56.6	60.5	52.5	54.3	50.0	40.2	36.9
Arkansas	51.3	51.6	51.6	50.3	49.8	51.7	55.7	55.3	49.5	44.2
Louisiana	1,411.7	1,313.9	1,255.9	1,231.0	1,281.8	1,341.6	1,459.6	1,542.2	1,657.1	1,783.1
Mississippi	89.8	86.2	90.5	93.7	98.2	102.3	115.1	117.9	125.9	127.7
New Mexico	217.4	205.9	194.6	196.1	205.1	218.2	228.4	239.0	251.7	260.5
Texas	2,478.8	2,473.0	2,535.1	2,589.4	2,670.6	2,789.3	2,942.6	3,117.5	3,250.0	3,347.8
Total	**4,303.4**	**4,182.0**	**4,182.5**	**4,217.1**	**4,366.0**	**4,555.6**	**4,855.7**	**5,121.9**	**5,374.4**	**5,600.2**
PAD District 4										
Colorado	79.0	79.6	83.7	83.0	81.4	88.5	100.8	108.1	106.5	104.4
Montana	81.5	80.1	84.7	84.4	80.0	82.1	83.5	89.5	89.7	90.0
Utah	95.0	80.9	61.5	70.9	68.2	76.0	85.9	90.7	93.7	115.9
Wyoming	340.5	324.1	324.1	357.7	345.2	361.3	376.4	373.9	366.5	372.5
Total	**596.0**	**564.7**	**554.0**	**596.0**	**574.8**	**607.9**	**646.6**	**662.2**	**656.4**	**682.8**
PAD District 5										
Alaska	1,727.1	1,713.8	1,695.6	1,609.1	1,616.6	1,400.9	1,229.1	463.6	173.2	191.3
Arizona	0.6	0.6	0.9	1.0	1.1	1.3	1.1	1.2	1.4	1.7
California	1,128.8	1,108.7	1,100.2	1,054.7	975.2	965.1	951.2	957.8	890.8	882.7
Nevada	5.2	2.2	1.7	1.9	2.4	3.4	3.2	1.8	0.4	0.3
Total	**2,861.7**	**2,825.3**	**2,798.4**	**2,666.7**	**2,595.3**	**2,370.7**	**2,184.6**	**1,424.4**	**1,065.8**	**1,076.0**
Total U.S.	**8,903**	**8,688**	**8,648**	**8,571**	**8,600**	**8,551**	**8,707**	**8,244**	**8,131**	**8,374**

**Less than 100 barrels per day.

(a) Missouri and Tennessee.

Source: Independent Petroleum Assn. of America, and American Petroleum Institute Data Book, January 1986.

Domestic Supply Trend (Add 000,000 bbl.)

Year	All products	Gasoline	Kerosine (a)	Distillate	Residual	LPG	Lubes	Other
1985 (b)	5,729	2,486	404	1,044	436	589	53	715
1984	5,756	2,449	391	1,041	501	576	57	741
1983	5,585	2,417	353	952	519	551	53	710
1982	5,566	2,386	339	977	618	443	51	754
1981	5,861	2,404	342	1,032	762	407	56	858
1980	6,932	2,536	397	1,389	1,033	414	58	1,105
1979	6,758	2,568	388	1,210	1,032	456	66	1,038
1978	6,879	2,705	377	1,253	1,103	358	63	1,020
1977	6,710	2,633	350	1,223	1,121	369	58	956
1976	6,391	2,567	351	1,147	1,025	381	58	864
1975	5,958	2,436	347	1,041	899	362	50	823
1973	6,317	2,453	386	1,124	1,030	404	59	851
1971	5,552	2,213	385	971	838	369	49	727
1970	5,364	2,131	358	927	804	363	50	731
1965	4,202	1,720	220	776	587	307	47	545
1960	3,610	1.512	132	685	559	227	43	427

(a) Kerosine includes jet fuel; (b) Preliminary.
Source: Petroleum Supply Monthly, Energy Information Administration, December 1985, published in February 1986

U.S. Estimated Petroleum Balance (Add 000 b/d)

Products Supplied/Supply From Primary Storage (a)	Full year			4th Quarter			3rd Quarter			2nd Quarter		
	1985	1984	% Chng.	1985	1984	% Chng.	1985	1984	% Chng.	1985	1984	% Chng.
Products Supplied:												
Motor gasoline, total	6,802	6,693	1.6	6,767	6,694	1.1	7,023	6,840	2.7	6,965	6,891	1.1
Finished leaded gasoline	2,409	2,705	(10.9)	2,264	2,526	(10.4)	2,464	2,734	(9.9)	2,555	2,866	(10.9)
Finished unleaded gasoline	4,393	3,988	10.2	4,503	4,168	8.0	4,559	4,106	11.0	4,410	4,025	9.6
Naphtha-jet	213	223	(4.5)	207	215	(3.7)	217	240	(9.6)	230	237	(3.0)
Kerosine-jet	985	953	3.4	1,082	993	9.0	1,011	975	3.7	907	900	0.8
Distillate fuel oil	2,871	2,845	0.9	3,004	2,819	6.6	2,584	2,572	0.5	2,685	2,776	(3.3)
Residual fuel oil	1,196	1,369	(12.6)	1,228	1,201	2.2	1,101	1,206	(8.9)	1,090	1,321	(17.5)
All other oils	3,873	3,830	1.1	3,943	3,748	5.2	4,023	3,985	1.0	3,620	3,735	(3.1)
Reclassified	−243	−186	30.6	−269	−131	105.3	−208	−193	7.8	−239	−228	4.8
Total domestic products supplied	15,697	15,727	(0.2)	15,962	15,539	2.7	15,751	15,627	0.8	15,258	15,634	(2.4)
Exports	742	722	2.8	727	813	(10.6)	695	644	7.9	751	762	(1.4)
Total Products Supplied	**16,439**	**16,449**	**(0.1)**	**16,689**	**16,352**	**2.1**	**16,446**	**16,271**	**1.1**	**16,009**	**16,396**	**(2.4)**
Supply:												
Domestic production												
Crude oil	8,905	8,879	0.3	8,935	8,927	0.1	8,935	8,895	0.4	8,951	8,891	0.7
Natural gas liquids	1,608	1,630	(1.3)	1,601	1,658	(3.4)	1,610	1,643	(2.0)	1,608	1,616	(0.5)
Other supply	830	785	5.7	874	808	8.2	869	610	42.5	616	915	(32.7)
Total domestic supply	11,343	11,294	0.4	11,410	11,393	0.1	11,414	11,148	2.4	11,175	11,422	(2.2)
Imports:												
Crude oil, total	3,054	3,229	(5.4)	3,463	3,278	5.6	2,974	3,224	(7.8)	3,362	3,397	(1.0)
Canadian	476	341	39.6	522	384	35.9	404	303	33.3	522	360	45.0
Other	2,578	2,888	(10.7)	2,941	2,894	1.6	2,570	2,921	(12.0)	2,840	3,037	(6.5)
Products, total	1,803	2,011	(10.3)	1,891	1,942	(2.6)	1,716	1,821	(5.8)	1,882	1,976	(4.8)
Residual Fuel oil	494	681	(27.5)	507	557	(9.0)	460	592	(22.3)	407	633	(35.7)
Other	1,309	1,330	(1.6)	1,384	1,385	(0.1)	1,256	1,229	2.2	1,475	1,343	9.8
Total imports	4,857	5,240	(7.3)	5,354	5,220	2.6	4,690	5,045	(7.0)	5,244	5,373	(2.4)
Total supply	**16,200**	**16,534**	**(2.0)**	**16,764**	**16,613**	**0.9**	**16,104**	**16,193**	**(0.5)**	**16,419**	**16,795**	**(2.2)**

(a) Preliminary for 1985.
Source: American Petroleum Institute, Monthly Statistical Reports, 1985.

U.S. Refinery Operations (a) (Add 000 b/d)

Refinery Operations (a)	Full year			4th Quarter			3rd Quarter			2nd Quarter		
	1985	1984	% Chng.	1985	1984	% Chng.	1985	1984	% Chng.	1985	1984	% Chng.
Input to crude oil distillation units	12,172	12,216	(0.4)	12,542	12,124	3.4	12,367	12,394	(0.2)	12,182	12,312	(1.1)
Operable capacity	15,677	16,033	(2.2)	15,693	15,875	(1.1)	15,655	16,040	(2.4)	15,605	16,067	(3.0)
Refinery utilization (%)	77.6%	76.2%	1.8	79.9%	76.4%	4.6	79.0%	77.3%	2.2	78.1%	76.5%	2.1
Crude oil runs	12,018	12,044	(0.2)	12,372	11,945	3.6	12,186	12,215	(0.2)	12,016	12,132	(1.0)

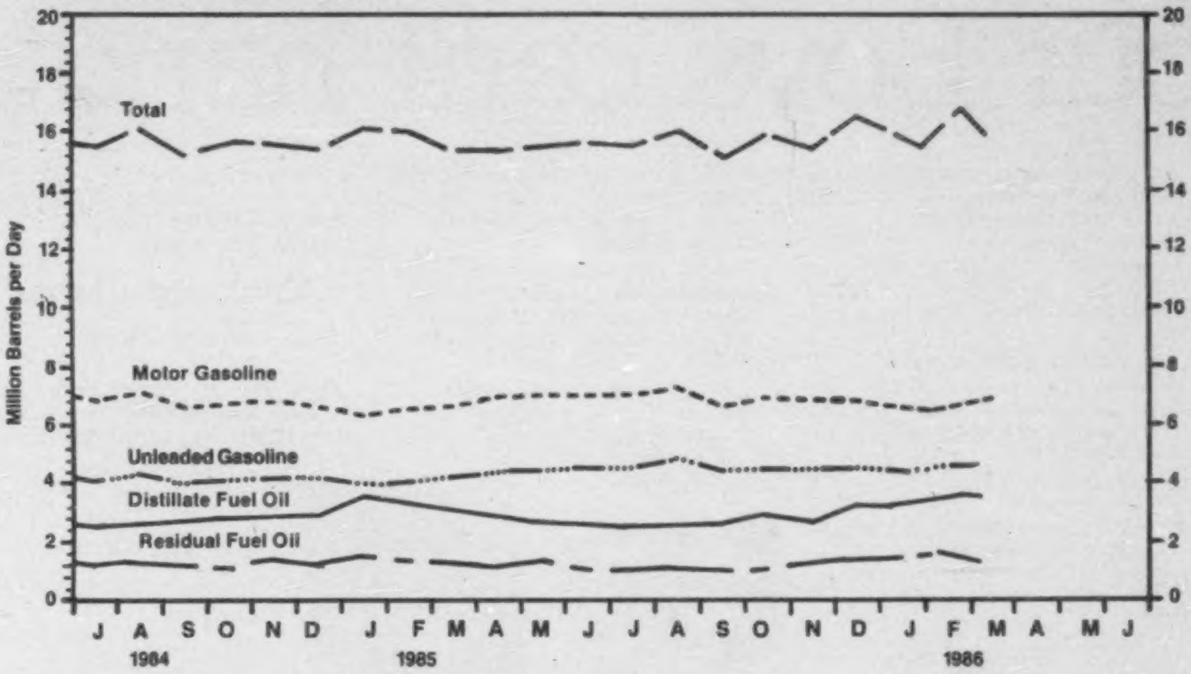
(a) Preliminary for 1985.
Source: American Petroleum Institute, Monthly Statistical Reports, 1985.

Crude and Product Inventories (Add 000,000 bbl.)

Stocks	4th Quarter			3rd Quarter			2nd Quarter			1st Quarter		
	1985	1984	% Chng.	1985	1984	% Chng.	1985	1984	% Chng.	1985	1984	% Chng.
Crude oil	321.9	345.4	(6.8)%	316.1	325.2	(2.8)%	342.9	352.9	(2.8)%	334.6	335.7	(0.3)%
Unfinished oils	107.8	93.5	15.3	103.4	108.4	(4.6)	115.6	110.8	4.3	107.1	115.7	(7.4)
Total motor gasoline	226.7	243.3	(6.8)	223.0	234.1	(4.7)	219.2	245.5	(10.7)	220.4	243.3	(9.4)
Finished leaded motor gasoline*	80.4	92.3	(12.9)	76.6	87.5	(12.5)	82.4	96.7	(14.8)	82.4	98.5	(16.3)
Finished unleaded motor gasoline*	110.6	112.9	(2.0)	110.1	106.6	3.3	103.3	107.5	(3.9)	102.6	104.3	(1.6)
Naphtha-Jet	6.4	6.9	(7.2)	6.4	7.0	(8.6)	6.5	6.9	(5.8)	6.5	6.7	(3.0)
Kerosine-Jet	34.4	35.1	(2.0)	35.8	38.0	(5.8)	36.5	36.1	1.1	34.7	33.9	2.4
Distillate fuel oil	143.5	161.1	(10.9)	117.4	142.9	(17.8)	109.7	112.8	(2.7)	99.7	109.6	(9.0)
Residual fuel oil	48.2	53.0	(9.1)	44.2	46.8	(5.6)	41.1	46.9	(12.4)	44.9	47.6	(5.7)
All other oils	129.7	167.4	(22.5)	156.9	179.3	(12.5)	164.7	176.9	(6.9)	140.7	159.7	(11.9)
Total all oils	**1,018.6**	**1,105.7**	**(7.9)**	**1,003.2**	**1,081.7**	**(7.3)**	**1,036.2**	**1,088.8**	**(4.8)**	**988.6**	**1,052.2**	**(6.0)**

*Included in total motor gasoline.
Source: American Petroleum Institute, Monthly Statistical Bulletins, 1985.

PETROLEUM PRODUCTS SUPPLIED
(Million Barrels per Day)



Source: Energy Information Administration, weekly Petroleum Status Reports.

Role of Imports in Domestic Demand

	U.S. Imports			Domestic Demand for Refined Products			
	Total (a) (Add 000 bbl.)	b/d Avg.	% Change	Total (Add 000 bbl.)	b/d Avg.	% Change	Imports as % of U.S. Demand
1985 (b)	1,836,680	5,032	(7.4%)	5,718,455	15,667	(.04%)	32.1%
1984	1,984,505	5,437	7.6	5,739,990	15,726	3.2	34.6
1983	1,843,615	5,051	(1.2)	5,559,315	15,231	(.04)	33.2
1982	1,866,245	5,113	(14.7)	5,583,040	15,296	(4.7)	33.4
1981	2,188,540	5,996	(13.2)	5,861,170	16,058	(5.9)	37.3
1980	2,521,785	6,909	(18.3)	6,225,440	17,056	(7.9)	40.5
1979	3,086,440	8,456	1.1	6,757,245	18,513	(1.8)	45.7
1978	3,052,495	8,363	(5.0)	6,879,155	18,847	2.2	44.0
1977	3,214,555	8,807	20.1	6,727,315	18,431	5.3	47.8
1976	2,676,411	7,313	20.8	6,390,750	17,461	7.2	41.9
1975	2,210,335	6,056	(0.9)	5,957,515	16,322	(2.0)	37.1
1974	2,230,947	6,112	(2.3)	6,078,239	16,653	(3.8)	36.7
1973	2,283,493	6,256	32.0	6,317,303	17,308	5.7	36.1
1972	1,735,314	4,741	20.8	5,990,316	16,367	7.6	29.0
1971	1,432,880	3,926	14.8	5,552,560	15,212	3.5	25.8
1970	1,248,062	3,419	8.0	5,364,473	14,697	4.0	23.3
1965	900,772	2,468	9.3	4,202,039	11,512	4.4	21.4
1960	664,111	1,815	2.0	3,585,820	9,797	2.8	18.5
1955	455,564	1,248	18.6	3,089,348	8,464	9.0	14.7
1950	310,261	850	31.8	2,392,974	6,556	13.0	13.0

(a) Crude oil and products but not crude for Strategic Petroleum Reserve; (b) Preliminary. Special note: Data for 1977 through 1985 are restated to reflect EIA information rather than other sources used in 1984.

Source: American Petroleum Institute. Basic Petroleum Data Book for 1950 through 1976; Energy Information Administration, Monthly Energy Review for 1977 through 1985.

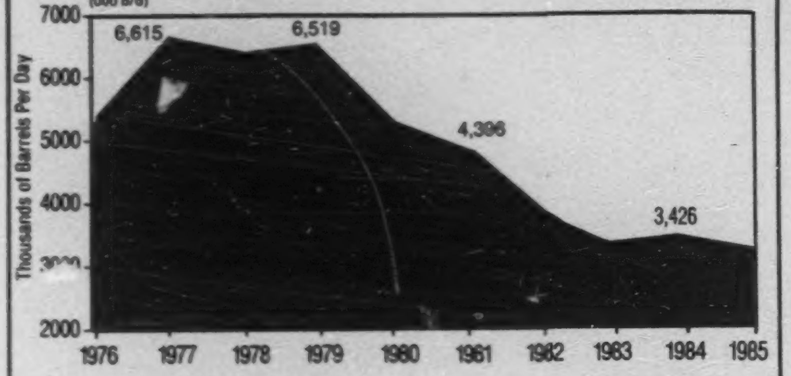
Petroleum Product Consumption—1984

(Add 000 bbl.)

	Motor Gasoline	Aviation Fuels	Middle Distillates(a)	Residual Fuel	Asphalt Road Oil	Propane	All Other(b)	Total Products
Alabama	41,155	2,985	15,541	2,186	4,121	3,583	10,679	80,250
Alaska	8,775	13,422	11,424	714	498	144	5,369	40,346
Arizona	33,496	4,097	7,639	238	2,825	286	7,457	56,038
Arkansas	26,952	598	12,688	641	861	3,297	6,913	51,950
California	274,876	52,834	83,889	59,067	17,350	10,413	76,507	574,936
Colorado	37,240	8,137	11,870	138	3,512	2,517	9,734	73,148
Connecticut	31,529	980	15,734	32,209	1,062	1,072	12,677	95,263
Delaware	6,894	84	8,979	3,692	270	562	3,144	23,625
Dist. of Columbia	3,677	96	3,304	(c)	23	—	1,090	8,190
Florida	118,880	18,848	30,780	40,391	7,903	7,669	34,455	258,926
Georgia	67,093	14,291	20,175	3,424	6,410	5,118	17,884	134,395
Hawaii	8,121	10,415	2,834	11,959	233	288	5,196	39,046
Idaho	9,796	319	5,168	333	539	532	2,561	19,248
Illinois	99,327	2,164	28,434	1,361	6,511	7,525	22,306	167,628
Indiana	57,001	14,644	28,413	2,330	6,821	5,022	17,534	131,765
Iowa	33,839	564	16,844	357	2,093	7,396	9,347	70,240
Kansas	51,193	2,723	28,763	756	2,192	33,965	18,357	137,949
Kentucky	37,996	2,942	18,098	410	2,467	4,435	10,184	76,530
Louisiana	51,243	10,549	33,699	27,177	2,298	11,206	20,901	157,071
Maine	12,970	416	9,651	10,766	1,266	562	5,469	41,100
Maryland	42,518	2,250	17,379	8,911	5,702	1,611	12,030	90,401
Massachusetts	51,951	6,563	34,911	42,990	1,248	1,224	21,319	160,206
Michigan	94,150	4,310	24,143	1,672	3,172	8,397	20,851	156,695
Minnesota	57,301	7,140	24,708	1,393	5,308	5,523	15,560	116,933
Mississippi	29,744	1,239	15,381	4,953	4,048	6,435	9,486	71,286
Missouri	55,560	5,398	17,140	352	4,502	4,896	13,484	101,332
Montana	12,027	627	7,400	633	1,382	1,187	3,570	26,826
Nebraska	17,400	646	11,382	238	718	3,533	5,206	39,125
Nevada	10,888	3,591	5,356	54	853	522	3,264	24,527
New Hampshire	5,556	261	6,178	4,088	1,100	775	2,756	20,714
New Jersey	103,564	40,267	78,591	41,172	7,095	2,653	41,957	315,299
New Mexico	19,146	1,067	8,639	487	2,161	5,338	5,654	42,492
New York	109,968	2,373	66,171	64,482	6,124	4,984	39,003	293,105
North Carolina	70,446	3,781	27,063	6,173	4,377	6,246	18,126	136,212
North Dakota	10,118	211	8,431	853	1,132	2,991	3,643	27,379
Ohio	107,087	6,179	38,667	2,361	7,822	4,772	25,617	192,505
Oklahoma	43,398	4,501	18,705	1,621	3,516	9,115	12,411	93,268
Oregon	30,936	1,854	16,411	3,257	2,863	1,149	8,668	65,138
Pennsylvania	108,545	9,987	54,609	22,520	4,617	4,896	31,493	236,667
Rhode Island	10,533	388	8,563	1,749	1,519	205	3,523	26,478
South Carolina	35,370	542	11,309	2,939	1,412	3,168	8,402	63,142
South Dakota	9,075	208	5,777	64	915	1,516	2,695	20,250
Tennessee	62,457	3,392	26,944	610	4,339	2,006	15,311	115,059
Texas	248,828	57,790	131,562	50,825	12,197	75,357	88,499	665,058
Utah	16,757	2,493	6,603	749	1,524	965	4,465	33,556
Vermont	2,646	154	1,831	234	257	785	904	6,791
Virginia	58,435	7,334	26,425	9,647	4,158	2,276	16,620	124,895
Washington	46,305	13,100	24,277	9,011	2,986	2,019	14,996	112,694
West Virginia	14,422	203	6,912	1,433	543	560	3,695	27,768
Wisconsin	47,582	1,400	19,328	143	1,723	5,580	11,628	87,384
Wyoming	7,140	179	9,109	343	1,390	3,295	3,293	24,749
TOTAL U.S.	**2,551,906**	**350,556**	**1,153,630**	**484,086**	**169,956**	**279,551**	**765,893**	**5,755,575**

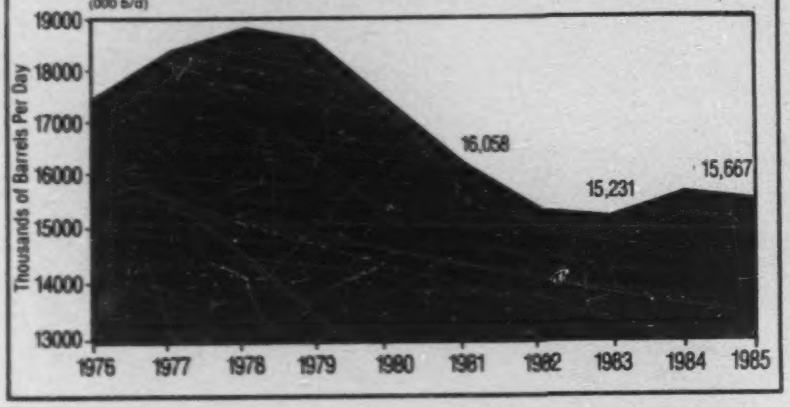
(a) Includes kerosine;
(b) Includes naphtha, lubricants, waxes, petroleum coke and still gas;
(c) Included with Maryland data.
Source: The Oil & Gas Producing Industry in Your State, 1985, published by Independent Petroleum Assn. of America; Energy Information Administration and The Asphalt Institute.

CRUDE OIL IMPORTS
(000 b/d)



DOMESTIC SUPPLY OF OIL PRODUCTS
(000 b/d)

Source: Department of Energy



Unleaded Gasoline: The Growth by Years

(Add 000 b/d)

	Total Gasoline Consumption	Unleaded Gasoline Consumption	Unleaded Percent of total
1985 January	6,336	4,026	63.5
February	6,521	4,048	62.1
March	6,629	4,189	63.2
April	6,931	4,377	63.1
May	7,036	4,422	62.8
June	6,975	4,456	63.9
July	6,997	4,536	65.7
August	7,236	4,753	65.9
September	6,639	4,374	64.9
October	6,914	4,488	66.1
November	6,790	4,490	66.1
December	6,752	4,548	67.4
Average	6,815	4,395	64.5
1984 Avg.	6,693	3,987	59.6
1983 Avg.	6,622	3,647	55.1
1982 Avg.	6,539	3,409	52.1
1981 Avg.	6,588	3,264	49.5
1980 Avg.	6,579	3,067	46.6
1979 Avg.	7,034	2,798	39.8
1978 Avg.	7,412	2,521	34.0
1977 Avg.(a)	7,177	1,976	27.5
1976 Avg.	6,978	—	—
1975 Avg.	6,675	—	—
1974 Avg.	6,537	—	—
1973 Avg.	6,674	—	—

(a) Unleaded was mandated in July, 1977 for all new model cars.
Source: Energy Information Administration, Petroleum Supply, Monthly, December 1985, published February 1986.

Supply and Demand, Principal Products (Add 000 bbl.)

	Motor Gasoline	Aviation Gasoline	Distillate Fuel Oil	Residual Fuel Oil	Jet Fuel (a)	Lubricants	Asphalt
Domestic Supply							
1985 (b)	2,467,562	9,254	1,043,645	435,946	436,171	52,644	153,364
1984	2,449,461	8,692	1,041,218	501,199	430,226	56,972	149,502
Production							
1985 (b)	2,337,611	8,098	977,979	318,465	425,728	53,041	145,431
1984	2,361,909	9,107	980,277	328,199	414,324	58,253	141,339
Imports							
1985 (b)	137,817	6	72,453	186,998	13,583	4,046	12,071
1984	109,288	20	99,439	249,211	22,571	4,698	6,713

(a) Includes Naphtha and kerosine based fuels: (b) Preliminary.

U.S. Oil Imports (a) (Add 000 b/d)

Year	Crude Oil	Other Products	Residual Fuel Oil	Total Imports	% of Total U.S. Supply
1985 (b)	3,216	1,317	512	5,045	32.1%
1984	3,426	1,330	681	5,437	34.6
1983	3,096	1,023	699	4,818	31.6

(a) Does not include Strategic Petroleum Reserve; (b) Preliminary.
Source: Department of Energy, Monthly Energy Review and IPAA.

Origins of U.S. Oil Imports

	OPEC Sources		Arab OPEC		Hemispheres	
	Thous. b/d	% of total imports	Thous. b/d	% of total imports	Western Thous.	Eastern b/d
1985	1,775	35.6	435	8.7	2,855	2,130
1984	2,049	37.7	819	15.1	2,703	2,734
1983	1,832	36.9	625	12.5	2,702	2,349

Source: Independent Petroleum Assn. of America, preliminary report.

	Total Well Completions			Proved Reserves				Supply (Add 000 b/d)	
Year	Total (a)	Dry	% Dry	Crude Oil (b)	Crude Production/ Reserve Ratio	Natural Gas (c)	Natural Gas Production/ Reserve Ratio	Domestic Crude & Natl. Gas Lqds.	Crude & Product Imports
1985 (d)	76,000	22,800	30.0	NA	NA	NA	NA	10,533	5,045
1984	85,773	25,456	29.7	28,446	9.4	197.5	11.5	10,505	5,437
1983	76,016	23,872	31.4	27,735	9.2	200.3	12.7	10,247	5,051

(a) Includes oil, gas, and dry completions, but not service wells; (b) Millions of bbl.; (c) Trillions of cubic feet; (d) Preliminary.
Source: Independent Petroleum Assn. of America and Energy Information Administration.

IPAA Forecast: The Outlook Brightens for '86

(000 b/d except closing stocks)

	1st Q	2nd Q	3rd Q	4th Q	Est. 1986	1985
DEMAND						
Domestic Product Demand:						
Motor Gasoline	6,668	7,185	7,215	7,125	7,050	6,815
Aviation Fuels	1,316	1,275	1,310	1,321	1,306	1,220
Middle Distillates	2,530	2,827	2,731	3,148	3,057	2,984
Residual Fuel Oil	1,370	1,199	1,145	1,289	1,250	1,194
Liquefied Gases	1,765	1,409	1,475	1,714	1,590	1,614
Other Products	1,612	2,026	2,171	1,837	1,913	1,869
Total	**16,264**	**15,921**	**16,047**	**16,434**	**16,166**	**15,696**
Exports	804	725	689	741	737	780
TOTAL DEMAND	**17,068**	**16,646**	**16,736**	**17,175**	**16,903**	**16,476**
SUPPLY						
Domestic Production:						
Crude Oil	8,936	8,770	8,695	8,600	8,749	8,920
Natural Gas Liquids	1,665	1,599	1,582	1,599	1,611	1,621
Total Production	**10,601**	**10,369**	**10,277**	**10,199**	**10,360**	**10,541**
Imports:						
Motor Gasoline	380	476	476	421	438	462
Aviation Fuels	54	54	50	59	56	37
Middle Distillates	236	211	213	315	244	263
Residual Fuel Oil	563	498	498	573	533	512
Liquefied Gases	264	165	175	229	209	187
Other Products	390	481	485	443	449	[illegible]
TOTAL PRODUCTS	**1,887**	**1,885**	**1,903**	**2,040**	**1,929**	**1,829**
Crude Oil Imports	3,195	3,567	3,632	3,828	3,557	3,098
TOTAL IMPORTS	**5,082**	**5,452**	**5,535**	**5,868**	**5,486**	**4,927**
Other Supply	974	980	963	1,222	1,034	784
TOTAL SUPPLY	**16,657**	**16,801**	**16,775**	**17,289**	**16,879**	**16,252**
REFINERY INPUTS	**12,483**	**12,928**	**13,012**	**13,237**	**12,918**	**12,438**
INVENTORIES						
Closing Stocks (000,000 bbl.):						
Motor Gasoline	225.0	218.5	217.8	220.2	220.2	223.4
Aviation Fuels	46.9	44.6	44.8	43.8	43.8	42.6
Middle Distillates	101.8	111.3	124.7	144.6	144.6	151.8
Residual Fuel Oil	39.8	40.8	41.6	45.2	45.2	50.7
Liquefied Gases	69.4	83.1	90.8	80.6	80.6	72.7
Other Products	53.9	53.1	47.3	46.7	46.7	48.7
TOTAL PRODUCTS	**536.8**	**551.4**	**567.0**	**581.1**	**581.1**	**589.8**
Unfinished Oils	103.7	108.3	103.8	102.3	102.3	106.2
Natural Gas Liquids	7.3	7.7	7.8	7.8	7.8	8.2
Crude Oil	338.3	332.8	325.2	323.1	323.1	318.7
TOTAL STOCKS	**986.1**	**1,000.2**	**1,003.8**	**1,014.3**	**1,014.3**	**1,023.1**
Crude Runs to Stills	**12,483**	**12,928**	**13,012**	**13,237**	**12,918**	**12,438**

Source: Independent Petroleum Assn. of America Supply and Demand Committee, April 29, 1986.

Independent Petroleum Assn. of America, in a revised forecast by its Supply & Demand Committee, says domestic petroleum demand should average 16.2 million b/d in 1986, up 3% from 1985's 15.7 million b/d. In its earlier projection made last fall, IPAA had anticipated a flat year for oil.

The new forecast says gasoline demand should be 3.4% higher in 1986 than 1985 while middle distillate increases 2.4% mainly from growth gains in the transportation sector. The long-running decline in residual fuel oil is expected to reverse itself and experience a 4.7% gain in 1986. This will come mostly from the lower prices in the industrial and power-generating sectors.

U.S. crude oil production is expected to decline this year, ending a four-year upward trend. The projected level for this year is down 170,000 b/d from 1985. Total imports (crude and product) are expected to increase 11% this year to an average of 5.5 million b/d. Gasoline and distillate imports will be up, but not that much to make a big difference. Refinery throughput should run around 12.9 million b/d, an increase of about 500,000 b/d over 1985.

U.S. Supply/Demand Projections—1986

Undaunted by the volatility of the marketplaces in the wake of the collapse of the international crude oil markets last winter, Conoco, Inc. sallied forth in mid-April with a three-scenario forecast on what might be ahead for the U.S. petroleum industry.

One point was paramount: Americans face an unpredictable energy future plagued by tight supplies and sharp price swings. Said president Constantin S. Nicandros: "The question is not if, but when, the next period of [supply] tightness will occur."

Here are the scenarios that Conoco projected:

Production Management Emerges.

- Oil exporting countries would limit production to increase near-term revenues and avoid price wars.
- Near-term crude prices settle in the high teens to low twenties.
- Crude oil prices reach $30-$35 bbl. in real terms by 1999.

Free World demand grows about 1% a year to 52 million b/d by the turn of the century, up 7 million b/d from today's level.

- Non-OPEC supply peaks in the late-1980s. Price leverage returns to Saudi Arabia and other Persian Gulf producers.
- Upward price pressure is evident in the early-1990s, with a potential for sharp run-ups in the late-1990s.
- Streamlining, cost-cutting and project upgrading continue in the energy companies.

Capacity Restrained

Physical and political developments eliminate excess crude oil productive capacity.

Crude oil and related energy prices escalate sharply in the near-term to $30-$25 bbl.

Producer cash flows improve if governments refrain from taxing gains but industrialized countries suffer from the price rise and supply constraint.

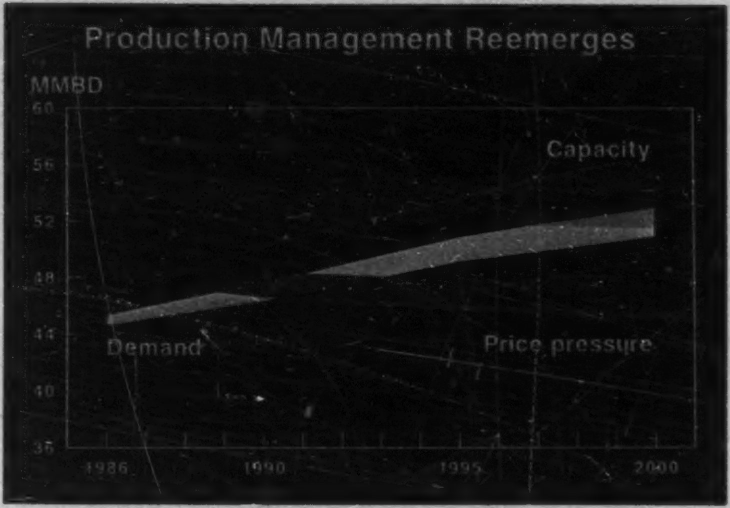
Crude prices could climb as high as $40 bbl. in the near-term if demand exceeded supply.

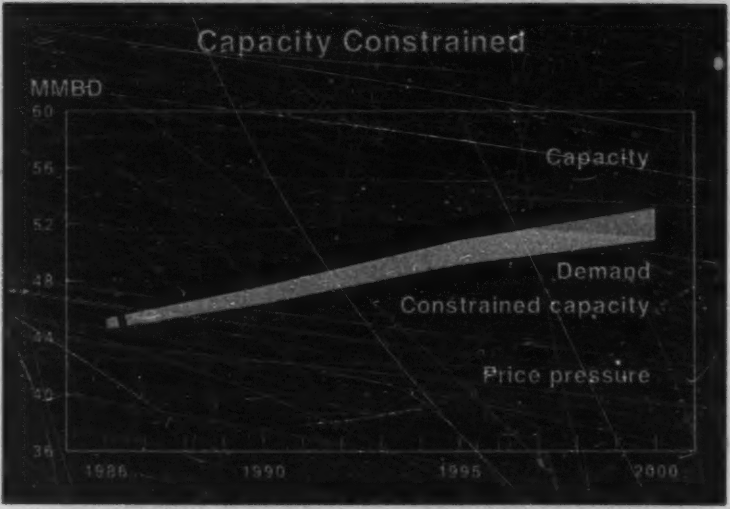
The possibility should not be overlooked that happenings could dramatically alter the parameters shaping today's world.

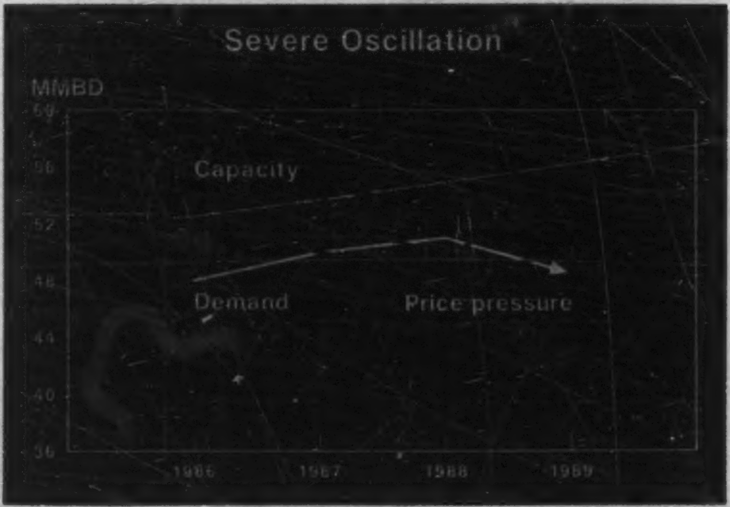
Severe Oscillation

In this concept, crude oil prices might drop to $5-$8 bbl.

- Some 5 million b/d of production would be lost, some permanently.
- Exploration and development activity virtually stops.
- Free World demand shoots upward by 3 million to 5 million b/d as residual fuel recaptures markets lost to coal and possibly natural gas; light oil products grow with robust economic activity.
- U.S. natural gas deliverability plummets and demand strengthens.
- If prolonged, prices could rebound sharply in the late 1980s as demand exceeds supply capacity; prices reach $35 bbl. or more.
- Over-reaction causes another correction and prices fall back to around $10 bbl.
- Lacking political intervention, a series of sharp price swings occurs.
- Consumers and government struggle with sharp price swings.
- Intolerable stress causes some sort of "event" that superimposes a political situation which could accelerate and exaggerate a world price rebound.







Gasoline is Oil's Prime Product

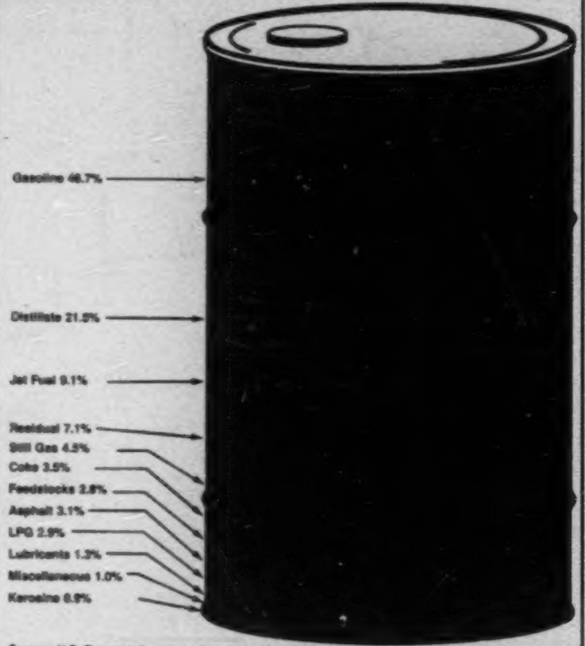
Distilled in hundreds of refineries, crude oil is made into a variety of products, of which gasoline is by far the most important. On the average, gasoline accounts for 46.7% of the crude oil barrel. Some sophisticated refineries, however, can easily exceed that average and produce even greater volumes of gasoline.

Here are the average yields for a 42-gal. bbl. in 1984:

Product	Gallons	Product	Gallons
Gasoline	19.7	Feedstocks	1.2
Distillate	9.0	Asphalt	1.3
Jet Fuel	3.8	LP-Gas	1.2
Residual	3.0	Lubricants	0.6
Still Gas	1.9	Kerosine	0.4
Coke	1.5	Miscellaneous	0.5

(These yields total 44.1 gal. mostly as a result of hydrogen processing gains. Similarly, in the chart at the right, the percentages include 4.4% processing gains.)

Legend has it that the 42-gal. bbl. dates back to the 15th century when King Edward IV of Norway standardized the herring barrel at 42 gal. Subsequently this became a standard for whiskey barrels in the U.S. The oil barrel was modeled after that in 1866 for all U.S. shipments. Canada uses an imperial gallon, making its barrel somewhat larger than the U.S. variety, while most countries overseas use the metric system for weights and measures.



Source: U.S. Energy Information Administration, DOE, June 1985.

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Harco Corporation, the leading designer of corrosion control systems, through Cathodic Protection, can assist you in the compliance of these regulations to save both new and existing tanks from premature corrosion failure.

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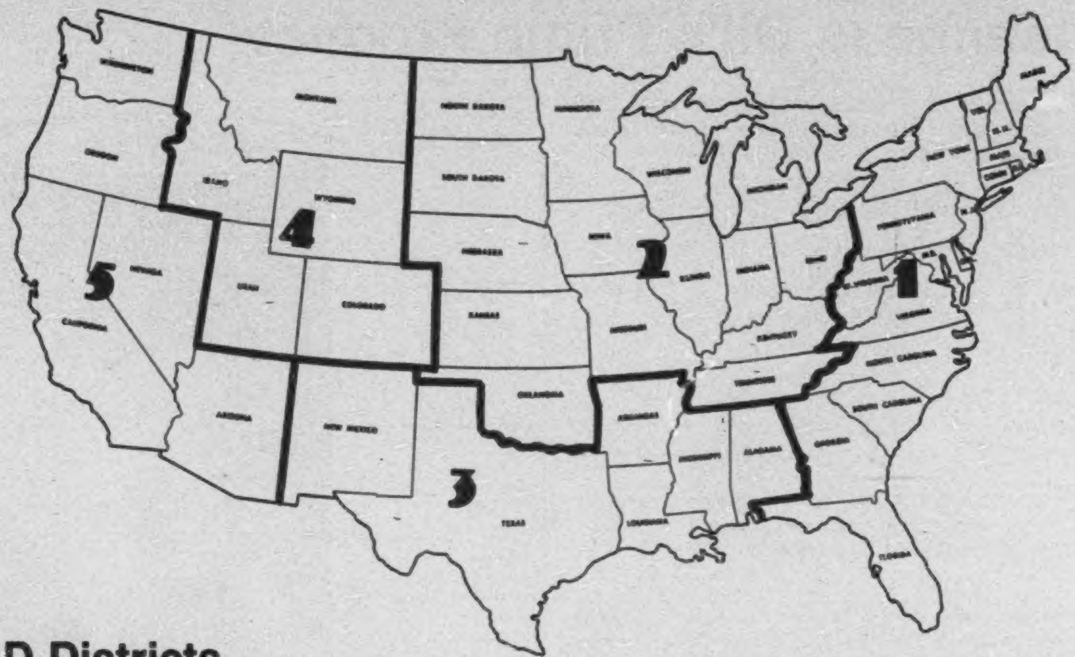
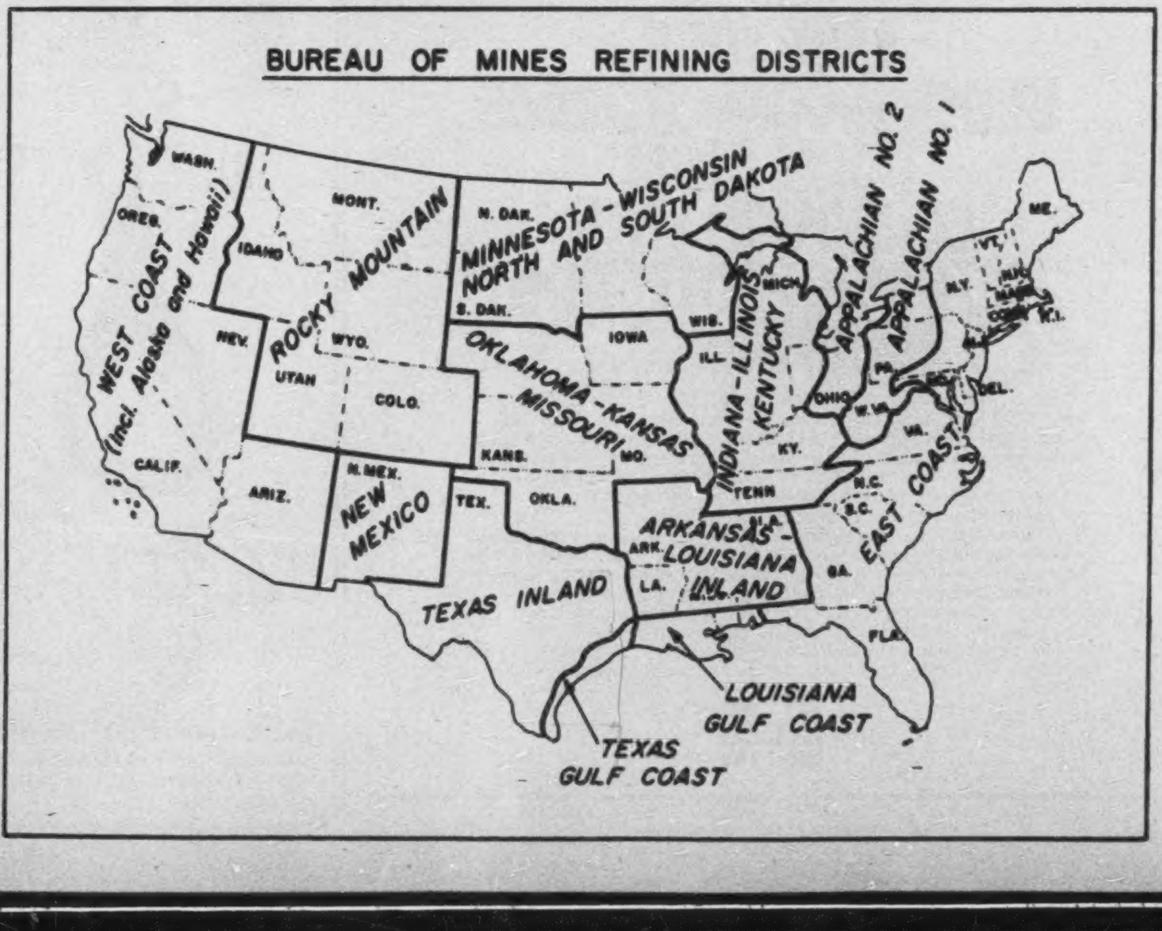


PAD Districts

PAD 1: Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia; PAD 2: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin; PAD 3: Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas; PAD 4: Colorado, Idaho, Montana, Utah, and Wyoming; PAD 5: Alaska, Arizona, California, Hawaii, Nevada, Oregon, and Washington.

Source: Energy Data Reports, Department of Energy.


BUREAU OF MINES REFINING DISTRICTS
WASH.
OREG.
WEST COAST (incl. Alaska and Hawaii)
CALIF.
NEV.
IDAHO
MONT.
ROCKY MOUNTAIN
WYO.
UTAH
COLO.
ARIZ.
N. MEX.
NEW MEXICO
N. DAK.
S. DAK.
MINNESOTA - WISCONSIN NORTH AND SOUTH DAKOTA
IOWA
WIS.
OKLAHOMA - KANSAS - MISSOURI
KANS.
MO.
OKLA.
TEX.
TEXAS INLAND
ARKANSAS - LOUISIANA INLAND
ARK.
LA.
ALA.
ILL.
INDIANA - ILLINOIS - KENTUCKY
MICH.
KY.
TENN
OHIO
W. VA.
APPALACHIAN NO. 2
APPALACHIAN NO. 1
PA.
N.Y.
VT.
N.H.
MASS.
CONN.
R.I.
ME.
DEL.
VA.
N.C.
S.C.
GA.
FLA.
EAST COAST
LOUISIANA GULF COAST
TEXAS GULF COAST

Shell Storage Capacity at Refineries and Blending Plants(a)

(Add 000 bbl.)

	Gasoline			Fuel Oil					
	Finished Leaded	Finished Unleaded	Blending Components	Middle Distillates	Residual	Asphalt and Road Oil	Total Products(b)	Crude Oil	Total Crude Oil and Products
PAD District 1									
Delaware, Maryland	156	774	2,050	3,139	131	835	8,867	3,182	12,979
Florida, Georgia, Virginia	344	443	582	1,045	473	406	3,390	2,647	6,824
New Jersey	2,280	2,960	4,930	10,540	3,898	1,013	33,032	10,035	48,307
New York	313	219	62	573	1,551	221	3,698	694	4,924
North Carolina	107	24	56	52	0	0	111	0	242
Pennsylvania	2,222	3,485	2,580	5,098	3,008	1,178	25,106	11,623	42,436
West Virginia	87	56	0	122	63	0	466	278	887
Total	**5,509**	**7,961**	**10,270**	**20,569**	**9,124**	**3,653**	**88,140**	**28,459**	**136,599**
PAD District 2									
Illinois	3,997	4,388	6,054	7,828	1,754	2,106	34,675	8,387	51,447
Indiana	1,997	2,401	3,702	6,153	2,747	2,448	24,207	3,694	32,299
Kansas	2,927	2,217	1,441	3,859	621	1,022	14,691	3,070	22,910
Kentucky, Tennessee	797	916	498	1,389	621	1,293	7,281	2,066	11,060
Michigan	531	556	561	1,894	742	889	7,975	1,221	10,283
Minnesota, Wisconsin	1,489	955	675	2,932	913	2,756	8,522	3,252	14,218
Missouri, Nebraska	291	260	0	28	0	0	45	0	596
North Dakota	428	333	961	1,058	85	0	2,362	482	3,605
Ohio	1,505	1,980	2,515	2,526	530	965	14,298	2,851	20,634
Oklahoma	2,899	2,567	3,247	5,495	750	1,307	19,214	4,775	29,460
Total	**16,861**	**16,578**	**19,654**	**33,162**	**8,763**	**12,786**	**166,714**	**29,796**	**196,512**
PAD District 3									
Alabama	315	378	680	731	1,024	610	4,010	2,657	7,360
Arkansas	116	166	148	704	100	692	1,811	1,532	3,625
Louisiana	3,815	5,734	11,853	17,600	9,015	1,607	75,916	26,222	111,687
Mississippi	763	1,425	1,933	3,291	631	1,233	8,963	4,304	15,456
New Mexico	269	194	722	661	141	447	3,144	986	4,583
Texas	12,260	14,183	24,570	24,799	15,230	2,797	177,300	57,991	262,364
Total	**17,538**	**22,716**	**39,906**	**47,786**	**26,231**	**7,386**	**311,382**	**93,692**	**405,084**
PAD District 4									
Colorado	488	227	613	426	755	466	3,193	462	4,370
Montana	818	458	1,835	1,457	269	1,395	6,849	1,737	9,862
Utah	809	446	1,230	1,350	505	234	4,502	1,549	7,306
Wyoming	1,331	764	1,597	1,781	634	2,525	8,314	1,560	11,969
Total	**3,446**	**1,895**	**5,275**	**5,014**	**2,183**	**4,679**	**28,199**	**5,308**	**33,507**
PAD District 5									
Alaska	177	101	591	768	1,172	59	3,218	1,151	4,647
California	6,042	8,435	14,816	9,367	15,006	3,595	75,432	38,016	127,925
Washington	1,498	1,423	2,508	2,261	1,446	424	10,560	8,448	21,929
Other states(c)	173	93	223	242	695	509	2,187	2,588	5,041
Total	**7,890**	**10,052**	**18,138**	**12,638**	**18,319**	**4,677**	**108,339**	**50,203**	**150,642**
U.S. Total	**51,244**	**58,196**	**93,243**	**119,169**	**64,620**	**33,121**	**703,784**	**207,460**	**911,244(d)**

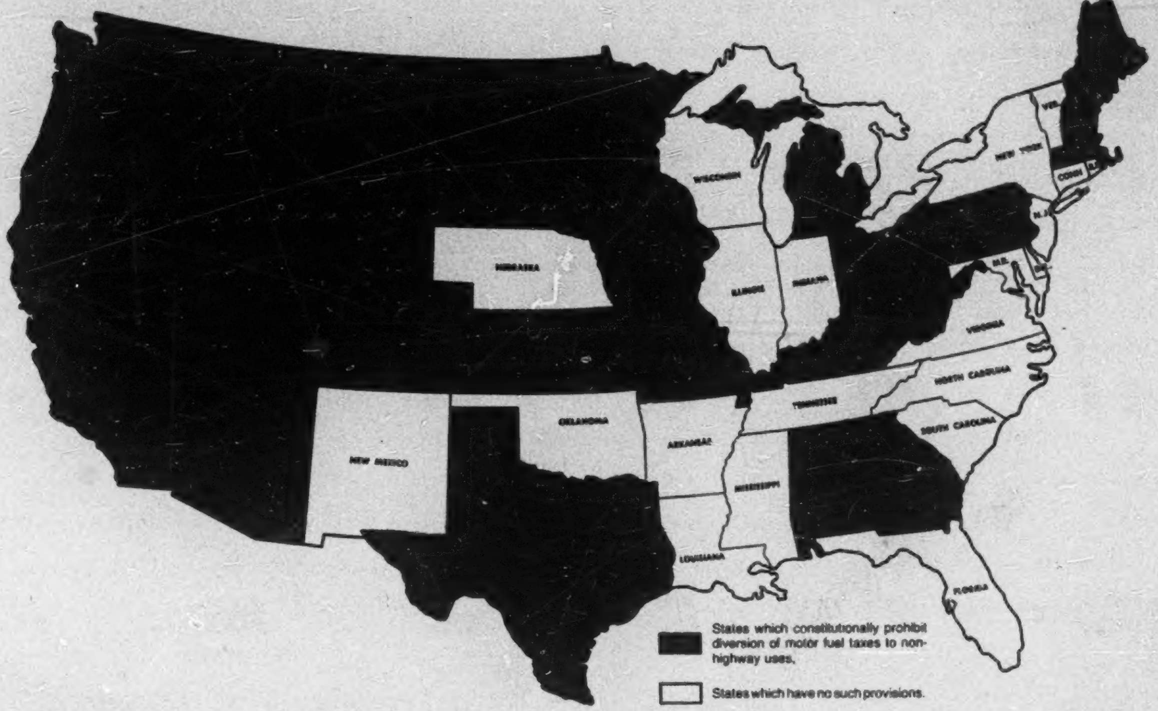
(a) Shell storage capacity: the design capacity of the tank; (b) Other products included in product total are lubricating oils, propane/propylene, butane/butylene, jet fuels, ethane/ethylene, isobutane, pentanes plus other hydrocarbons, hydrogen, alcohol, unfinished oils, finished aviation gasoline, special naphthas, wax, petroleum coke and gas; (c) other states are Hawaii, Nevada and Oregon; (d) U.S. total includes 54,563,000 bbl. capacity at shutdown refineries.

Working Storage Capacity at Refineries and Blending Plants(a)

(Add 000 bbl.)

	Gasoline			Fuel Oil					
	Finished Leaded	Finished Unleaded	Blending Components	Middle Distillates	Residual	Asphalt and Road Oil	Total Products(b)	Crude Oil	Total Crude Oil and Products
PAD District 1									
Delaware, Maryland	132	685	1,705	2,623	119	722	7,454	2,714	10,985
Florida, Georgia, Virginia	294	378	483	905	396	383	2,937	2,285	5,894
New Jersey	1,945	2,455	4,168	9,598	3,447	914	29,413	8,564	42,377
New York	297	208	60	539	1,454	188	3,469	595	4,569
North Carolina	96	22	55	47	0	0	105	0	223
Pennsylvania	1,987	3,097	2,281	4,703	2,712	1,020	22,875	9,934	37,893
West Virginia	68	47	0	95	43	0	399	217	731
Total	**4,819**	**6,892**	**8,752**	**18,510**	**8,171**	**3,227**	**78,363**	**24,309**	**102,672**
PAD District 2									
Illinois	3,381	7,042	5,205	7,201	1,641	1,971	31,368	7,131	45,541
Indiana	1,803	2,106	3,248	5,536	2,514	2,265	21,644	3,179	28,732
Kansas	2,733	2,059	1,276	3,615	563	962	13,680	2,815	21,267
Kentucky, Tennessee	753	861	468	1,299	584	1,215	6,818	1,931	10,363
Michigan	495	523	517	1,794	701	851	7,326	1,148	9,492
Minnesota, Wisconsin	1,383	870	634	2,797	853	2,571	8,001	2,917	13,181
Missouri, Nebraska	285	259	0	26	0	0	41	0	585
North Dakota	357	265	576	769	73	0	1,624	408	2,654
Ohio	1,341	1,745	2,246	2,340	497	910	13,117	2,555	18,758
Oklahoma	2,683	2,375	3,080	5,150	704	1,218	17,898	4,167	27,123
Total	**15,214**	**14,724**	**17,250**	**30,527**	**8,130**	**11,963**	**151,445**	**26,251**	**177,696**
PAD District 3									
Alabama	260	326	585	612	864	481	3,373	2,289	6,248
Arkansas	104	149	138	652	90	624	1,656	1,376	3,285
Louisiana	3,172	4,585	9,452	15,694	8,196	1,359	66,186	21,292	95,215
Mississippi	696	1,268	1,820	3,051	576	1,134	8,272	3,870	14,106
New Mexico	220	157	648	588	126	426	2,843	864	4,084
Texas	10,812	13,019	21,176	22,254	13,137	2,522	155,831	49,252	228,914
Total	**15,264**	**19,484**	**33,812**	**42,861**	**22,989**	**6,546**	**272,909**	**78,943**	**361,852**
PAD District 4									
Colorado	452	205	585	405	738	450	3,003	401	4,061
Montana	746	412	1,670	1,334	249	1,280	6,237	1,545	8,940
Utah	711	391	1,076	1,186	451	211	3,955	1,342	6,399
Wyoming	1,174	678	1,403	1,661	592	2,314	7,563	1,458	10,873
Total	**3,083**	**1,686**	**4,714**	**4,586**	**2,030**	**4,255**	**25,527**	**4,746**	**30,273**
PAD District 5									
Alaska	165	96	561	734	1,124	57	3,075	1,085	4,421
California	5,287	7,262	12,963	8,305	13,652	3,223	66,551	32,429	111,529
Washington	1,370	1,255	2,219	2,061	1,330	401	9,466	7,396	19,487
Other states(c)	161	87	208	227	671	570	2,076	2,536	4,860
Total	**6,983**	**8,700**	**15,951**	**11,327**	**16,777**	**4,251**	**96,851**	**43,446**	**140,297**
U.S. Total	**46,363**	**51,486**	**80,486**	**107,801**	**58,097**	**30,242**	**625,095**	**177,895**	**802,790(d)**

(a) Working storage capacity: the difference in volume between the maximum safe fill capacity and tank bottoms, as of Jan. 1, 1985; (b) other products included in the product total are lubricating oils, propane/propylene, butane/butylene, jet fuels, ethane/ethylene, isobutane, pentanes plus other hydrocarbons, hydrogen, alcohol, unfinished c[illegible], finished aviation gasoline, special naphthas, wax, petroleum coke and gas; (c) other states are Hawaii, Nevada and Oregon; (d) U.S. total includes 54,563,000 bbl. capacity at shutdown refineries.
Source: Energy Information Administration, Petroleum Supply Annual, Vol. 1, published June 1985.



State Tax Collections

State	Gasoline tax rates per gal. in 1985	Total state motor fuel tax revenues (Add 000) 1985	1984	% Change
Alabama	13¢	$321,916	$282,016	14.1%
Alaska	8	25,470	27,248	−6.5
Arizona	13	234,408	212,312	10.4
Arkansas	13.5	174,830	141,600	23.5
California	9	1,152,451	1,120,525	2.8
Colorado	12	195,865	195,572	0.1
Connecticut	16	232,440	201,115	15.5
Delaware	11	41,050	39,121	4.9
Dist. of Columbia	15.5	31,199	26,860	16.1
Florida	9.7	565,413	545,817	4.3
Georgia	7.5	289,300	278,758	3.8
Hawaii	11	30,429	28,855	5.5
Idaho	14.5	72,280	76,058	−5.0
Illinois	13	740,407	663,178	11.6
Indiana	14	424,763	338,686	25.4
Iowa	15	218,690	192,763	13.5
Kansas	11	146,435	143,142	2.3
Kentucky	10	186,810	197,404	−4.4
Louisiana	16	375,266	290,782	29.0
Maine	14	88,524	86,063	2.8
Maryland	13.5	311,411	303,458	2.6
Massachusetts	11	286,334	281,609	1.7
Michigan	15	613,343	586,564	4.6
Minnesota	17	393,385	345,929	13.7
Mississippi	9	143,691	136,884	5.0
Missouri	7	207,316	201,833	2.7
Montana	15	81,305	82,357	−1.3
Nebraska	17.4	140,627	123,406	13.6
Nevada	13	70,448	68,768	2.4
New Hampshire	14	72,258	68,577	5.4
New Jersey	8	298,614	310,293	−3.8
New Mexico	11	98,656	100,357	−1.7
New York	8	471,020	411,629	14.4
North Carolina	12	427,496	421,466	1.4
North Dakota	13	58,881	54,653	7.7
Ohio	12	620,054	621,540	−0.2
Oklahoma	10	200,250	172,142	16.3
Oregon	10	123,330	113,544	8.6
Pennsylvania	12	923,317	898,065	2.8
Rhode Island	13	52,000	50,010	4.0
South Carolina	13	251,331	246,674	1.9
South Dakota	13	56,900	55,502	2.5
Tennessee	13	355,590	293,660	21.0
Texas	10	993,200	668,727	48.5
Utah	14	108,728	95,397	14.0
Vermont	13	35,710	37,735	−5.4
Virginia	11	424,723	412,215	3.0
Washington	18	372,600	350,429	13.5
West Virginia	10.5	146,225	156,959	−6.8
Wisconsin	16.5	369,962	355,830	4.0
Wyoming	8	27,169	35,655	−23.8
Total	—	$14,287,822	$13,149,742	8.7%

Note: Gasoline taxes are for gasoline only; 1985 data are estimates.
Source: Federal Highway Administration, Table SS84-2, October 1985.

Federal (Add 000)

Year	Gasoline(a)	Diesel and special fuels(a)	Lube oil(b)	Total
1985(c)	$7,587,622	$2,224,247	($9,747)	$9,802,122
1984	7,698,941	1,470,064	(10,155)	9,158,850
1983	6,091,841	957,988	8,847	7,058,676
1982	4,120,013	594,083	76,181	4,790,277
1981	3,801,795	570,477	74,695	4,446,967
1980	4,019,481	518,352	78,835	4,616,668
1979	4,282,919	508,595	82,335	4,873,849
1978	4,381,950	488,064	79,047	4,949,061
1977	4,229,721	452,631	78,830	4,761,182
1976	4,140,924	408,560	70,135	4,619,619
1975	3,884,483	362,675	66,124	4,313,282
1974	3,854,505	373,302	78,155	4,305,962
1973	3,958,682	358,120	86,266	4,403,068
1972	3,736,545	321,551	85,841	4,143,937
1971	3,513,927	275,159	67,130	3,856,216
1970	3,408,505	264,815	65,862	3,739,182

(a) Taxes went up from 4¢ gal. to 9¢ gal. on April 1, 1984. Totals exclude mass transit account taxes which went into effect April 1, 1983. Mass transit account taxes amounted to $519.6 million in 1983, and $1.2 billion in 1984.
(b) Lube oil tax of 4¢ gal. was discontinued in 1983 and 1984 deficit represents paybacks.
(c) Figures for 1985 are fiscal year gross collections that went to the Highway Trust Fund, since net IRS calendar year information was not available. All other figures represent calendar year net collections after refunds and include the taxes the federal government pays on its own purchases.
Source: U.S. Department of Transportation, Federal Highway Administration.

Outlook for Tires and Batteries at Stations

	Replacement passenger tire shipments			Replacement automotive-type battery shipments		
Year	Total (in millions)	Station sales (a) (in millions)	Average per station (a)	Total (in millions)	Station sales (a) (in millions)	Average per station (a)
1985	142	28.4	228	58.7	17.6	141
1984	145	29.0	220	59.3	17.8	135
1983	134	26.8	196	56.1	16.8	123
1982	132	26.4	182	54.2	16.3	113
1981	126	25.2	166	53.6	16.1	106
1980	107	21.4	135	50.0	15.0	95
1979	122	24.4	148	53.7	16.1	102
1977	130	26.0	148	54.6	16.4	95
1975	125	23.7	125	42.6	12.7	67
1970	130	26.0	118	37.9	11.4	51

(a) Estimates based on service stations holding 20% of the tire replacement market, and 30% of the replacement battery market;
Source: Tire and battery totals from Rubber Manufacturers Assn. and Battery Council International and estimates by *NPN*.

Battery Shipments Set Record in 1985

Battery shipments (replacement and original equipment) rose a scant 75,000 units in 1985, not enough to be significant in one sense but yet enough in their own right to establish an all-time record for the year. This was only the second time that total battery shipments exceeded 70 million units in any 12-month period. Replacement battery shipments eroded slightly in 1985—down 1.1%—but original equipment shipments were up significantly—6.6%—to more than compensate for the losses. Percentagewise, the difference between the 1984 and 1985 totals was negligible—less than 1%.

(Add 000)

Year	Replacements	% of Market	New cars & trucks	% of Market	Total market	% Change from previous year
1985	58,684	83.4%	11,649	16.6%	70,333	—
1984	59,333	84.5	10,925	15.5	70,258	5.0
1983	56,105	83.8	10,823	16.2	66,928	7.9
1982	54,214	87.4	7,819	12.6	62,033	0.8
1981	53,598	87.1	7,956	12.9	61,554	6.0
1980	50,063	86.2	8,009	13.8	58,072	−11.0
1979	53,746	82.4	11,480	17.6	66,226	−6.2
1977	54,601	81.2	12,639	18.8	67,240	10.8
1975	42,582	82.5	8,985	17.6	51,567	−5.3
1970	37,389	81.9	8,239	18.1	45,629	0.5

Source: Replacement battery figures supplied by Battery Council International. New cars and trucks are U.S. factory sales figures provided by Motor Vehicle Manufacturers Assn.

Replacement Batteries

Replacement battery shipments totaled 58.7 million units in 1985, with 12-volt and 6-volt accounting for 89% of the total, according to Battery Council International. Here are the highlights of its annual report:

Replacement Batteries:

Passenger cars and light trucks:

12-volt: 46,685,619, or 79.5% of the total; 6-volt: 1,095,039, or 1.9% of the total.

Heavy duty commercial:

12-volt: 2,766,010, or 4.7% of the total; 6-volt: 1,656,838, or 2.8% of the total.

Original Equipment:

Passenger cars and light trucks:

12-volt: 11,656,934, or 86.5% of the total; 6-volt: 12,054, or 0.09% of the total.

Heavy duty commercial:

12-volt: 667,010, or 4.9% of the total; 6-volt: 42,638, or 0.32% of the total.

Source: Battery Council International, April 1985.

Where Batteries Are Sold

	Shipments in Units					
	1985			1984		
Channels of Distribution	Private Brands	Mfg. Own Brand	Total	Private Brands	Mfg. Own Brand	Total
Gasoline and Oil	1,756,628	361,056	2,117,684	1,920,647	514,479	2,435,126
Tires and Rubber	1,992,236	222,193	2,214,429	2,167,830	362,062	2,529,892
Mass Merchandisers						
Department and Discount Stores	12,968,279	213,445	13,181,724	12,735,490	363,609	13,099,107
Auto Chains	4,092,619	1,230,210	5,322,829	4,198,853	869,967	5,068,020
Other	1,939,617	7,516	1,947,133	2,407,093	15,908	2,423,001
Fleet Operations	16,765	309,376	326,141	9,629	377,091	386,720
Government	307,147	314,388	621,535	129,845	279,606	409,451
Vehicle & Equipment Mfrs.	1,811,273	153,936	1,965,209	2,159,402	282,996	2,442,398
Parts Distribution	4,353,434	6,082,477	10,435,911	4,243,318	6,609,980	10,853,298
Battery Specialists	13,666,077	4,855,777	18,521,854	13,543,203	4,534,118	10,077,321
Others (a)	276,803	187,678	464,481	417,581	160,223	577,804
Total	**43,180,878**	**13,938,052**	**57,118,930**	**43,932,899**	**14,370,039**	**58,302,938**

(a) Includes government data.
Source: Battery Council International; figures based on estimates submitted by 20 member firms.

Tire Shipments Flatten Out in 1985

Original equipment tire shipments rose modestly in 1985 but those destined for replacement and export markets declined after two good years in a row. Original shipments rose almost 6% over 1984 while replacements slipped 1.6% and exports 19%. The entire market was off about one-half per cent. Original equipment shipments are roughly 25% of the total market while replacements are more than 70%.

'85 vs. '84	Passenger	Bus/ Truck	Farm Equipment	% of Total	Total by Type of Market
Original equipment	7.54%	(1.0%)	(35.0%)	5.8%	5.8%
Replacement	(2.2)	1.2	(7.6)	(1.6)	(1.6)
Export	(23.7)	0.2	(3.3)	(19.0)	(23.5)
Total	**(0.4)**	**0.8**	**(14.21)**	**(0.4)**	**(0.4)**

Source: Rubber Manufacturers Assn., Monthly Statistical Report.

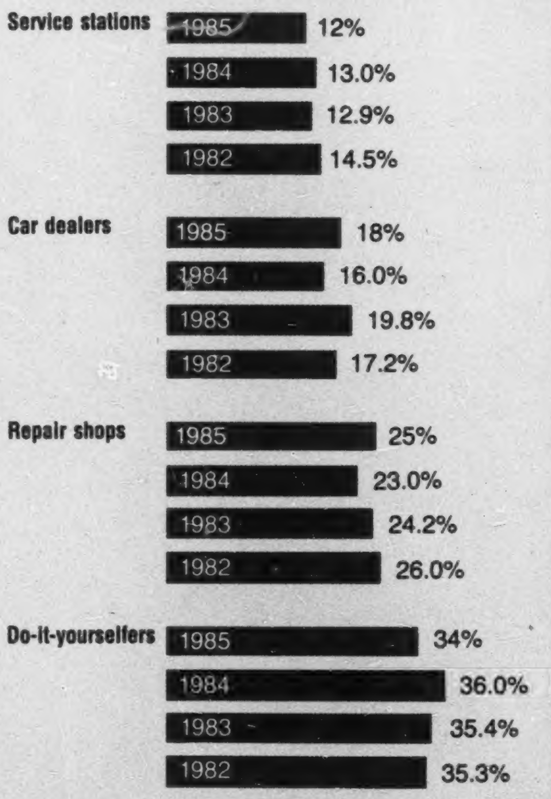
Auto, Truck and Farm Shipments

Type of Tire (Add 000)

	Passenger	% of Market	Bus/ Truck	% of Market	Farm Equipment	% of Market	Total of Market Type	% of Total
1985								
Original Equipment	54,838	86.9%	7,698	12.2%	598	0.9%	63,134	25.7%
Replacement	141,455	80.4	32,098	18.2	2,395	1.4	175,948	71.8
Export	4,625	75.4	1,335	21.8	176	2.9	6,136	2.5
Total	**200,918**	**82.2%**	**41,131**	**16.8%**	**3,169**	**1.3%**	**245,218**	**—%**
1984								
Original Equipment	50,993	85.4%	7,777	13.0%	920	1.5%	59,690	24.2%
Replacement	144,580	80.8	31,707	17.7	2,592	1.4	178,879	72.7
Export	6,064	80.0	1,333	17.6	182	2.4	7,579	3.1
Total	**201,637**	**81.9%**	**40,817**	**16.6%**	**3,694**	**1.5%**	**246,148**	**—%**

Source: Rubber Manufacturers Assn., Monthly Statistical Report, December 1985.

Where consumers get tuneups



Source: Champion Spark Plug Co.

1985 Ethylene Glycol-Base Antifreeze Sales

	-(Add 000 gal.) Civilian	Government
Packaged ethylene glycol antifreeze sold in quart and gallon sizes	144,306,517	-0-
in drums	12,682,992	(*)
Total	**156,989,509**	(*)
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to packagers	55,284,103	(*)
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to motor vehicle manufacturers for "drive-away" or factory fill use	19,377,529	
Total	**231,651,141**	**1,265,391**
Grand total (civ. and gov't.)		**232,916,532**

1984 Ethylene Glycol-Base Antifreeze Sales

	(Add 000 gal.) Civilian	Government
Packaged ethylene glycol antifreeze sold in quart and gallon sizes	131,078,230	-0-
in drums	13,638,307	(*)
Total	**144,716,537**	(*)
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to packagers	52,721,827	(*)
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to motor vehicle manufacturers for "drive-away" or factory fill use	17,307,727	
Total	**214,746,091**	**4,291,961**
Grand total (civ. and gov't.)		**219,038,052**

(*) Data not shown, except for total, to avoid disclosure of individual company data.
Source: Chemical Specialties Manufacturers Assn.

Outlook Perks Up for Parts and Services

The projected growth that failed to materialize in 1985 has now been superimposed anew on the calendar year 1986 by the Bureau of Industrial Economics of the U.S. Department of Commerce for the automotive parts and services business. The Bureau says growth should exceed 5% in 1986, on top of a delayed growth of 3% in 1985.

If all these things come true, it would be a welcome relief from the doldrums of recent years.

The Bureau looks at 1986 as the first $11 billion dollar sales year in the sector's franchised history. That would be 12% over 1985 which, in turn, was up almost 10% over 1984. At least, if the number of stores aren't increasing as rapidly as had been forecast, the sales dollars are making up for it.

The Bureau also believes that individual stores will average close to $300,000 in sales in 1986. Company stores are expected to do significantly better than privately owned, however.

Automotive Products/Services (a)

	1986 (b)	1985 (b)	1984
Total number of establishments	38,191	36,200	35,111
Company-owned	4,832	4,572	4,350
Franchise-owned	33,359	31,628	30,761
Total sales of products and services (Add 000) (c)	$11,334,038	10,098,842	9,186,427
Company-owned (c)	3,569,178	3,199,823	2,843,936
Franchise-owned (c)	7,764,860	6,899,019	6,342,491
Average sales per establishment (c)	$297,000	279,000	261,000
Company-owned (c)	738,000	700,000	653,000
Franchise-owned (c)	233,000	218,000	208,000

(a) Includes tire, battery and accessory stores; auto and truck wash services; and brake and muffler repair and services; (b) Data estimated by respondents; (c) Includes sales of non-automotive products such as household appliances, garden supplies, etc.
Source: "Franchising in the Economy, 1984-1986," Bureau of Industrial Economics, U.S. Department of Commerce.

Car Lubrication Service

1986 Crankcase Drain Intervals and Recommended Oil

		Normal Service		Severe Service		
Make	Engine	Miles	Months	Miles	Months	Type Of Oil
American Motors	All	7,500	7.5	—	—	SF
Chrysler Corp.	Turbo	7,500	6	3,000	3	SF-CC SF-CD(a)
	Others	7,500	12	3,000	3	SF SF-CC
Ford Motor Co.	Turbo	5,000	—	3,000	3	SF SF-CC SF-CD
	2.0 L Diesel	7,500	7.5	3,000	3	SF-CC SF-CD
Merkur		5,000	12	3,000	3	SF SF-CC SF-CD
General Motors	Gasoline	7,500(b)	12	3,000(b)	3	SF-CC SF-CD
	4-cyl. Diesel	3,750	12	2,000	3	SF-CC SF-CD(a)

(a) preferred
(b) 4-cyl. turbo, 3,000 miles or 3 months.
Source: Gousha/Chek-Chart.

1986 Automatic Transmission/Transaxle Drain Intervals and Recommended Fluids

		Normal Service		Severe Service	
Make	Fluid	Months	Miles	Months	Miles
American Motors	Dexron®-II	30	30,000	—	—
Chrysler Corp.	Dexron®-II(b)	—	(a)	—	15,000
Ford Motor Co.	Type H(c)	—	(a)	—	30,000
General Motors	Dexron®-II	—	100,000	—	15,000

(a) Drain not required for normal service.
(b) ATF+ or Type 7176 fluid is preferred in RWD vehicles.
(c) C-3 trans. uses Dexron®-II.
Source: Gousha/Chek-Chart.

1986 Chassis Lubrication Intervals

	Normal Service		Severe Service			
Make	Months	Miles	Months	Miles	Type	Part or Specification No.
American Motors	7.5	7,500(a)	Shorter - intervals		#2 Lithium EP	8993630
Chrysler Corp.	36	30,000	18	15,000	#2 Barium EP	4318062
Ford Motor Co.	—	30,000	—	15,000	#2 Lithium EP with polyethylene 8-molybdenum disulfide (suspension) #4-5 Lithium (steering)	M1C75-B M1C92-A Type II
General Motors						
Gasoline	12	7,500	6	6,000	#1-2 Multipurpose EP	6031-M
Diesel	12	5,000	6	5,000	#1-2 Multipurpose EP	6031-M

(a) Except front-wheel drive models.
Source: Gousha/Chek-Chart. Reprinted with permission.

Exclusive Service Job Analysis Update Shows Continued Increases in Service Work

A special update survey for 1985 based on Hunter Publishing Company's exclusive 1984 *Service Job Analysis* reveals that U.S. service stations continue to attract a healthy share of the traditional automotive repair and service work.

The update survey, which was conducted using the same Hunter Micromarket Panel which provided data for the 1984 SJA report, shows that service stations enjoyed increases in number of jobs performed in 51 out of the 53 basic jobs shown in the tables below. Independent repair shops and new car/truck dealers also had substantial increases in service work in the 1984-85 period, according to the SJA update.

The table below presents data selected from the SJA's major repair/service categories, with emphasis on the type of jobs frequently performed in service stations.

The data is based on a service dealer universe of 329,000 outlets: 115,000 service station, 150,000 independent repair shops, 25,000 new car/truck dealers and 39,000 fleet service shops. The fleet service segment has been left out of the tables since it relates more to truck repair than automobile service. The SJA does not include figures for discount stores, auto repair chains or other non-traditional repair outlets.

Particularly interesting in the 1985 SJA update are the sizeable percentage increases shown for those categories in the "growth" areas of the repair and service market—computer wheel balancing, MacPherson strut replacements, disc brakes, carburetor kits, and the like.

		Service Stations			Independent Repair Shops			New Car/Truck Dealers		
Job	Total Jobs* Performed (Add 000)	Number of Jobs Performed (Add 000)	% of Jobs	% Change from 1984	Number of Jobs Performed (Add 000)	% of Jobs	% Change from 1984	Number of Jobs Performed (Add 000)	% of Jobs	% Change from 1984
LUBRICATION										
Lube Jobs—Car	142,685	69,551	48.7%	1.4%	35,364	24.8%	3.9%	29,167	20.4%	3.9%
Oil Changes—Car	153,987	74,102	48.1	3.0	37,557	24.4	4.2	34,654	22.5	6.0
Engine Oil Sold—Quarts	871,194	432,914	49.7	3.6	212,611	24.4	4.0	152,358	17.5	4.3
Oil Filters Replaced—Car	132,323	65,261	49.3	3.4	35,429	26.8	4.4	29,856	22.6	6.4
Air Filters Replaced—Car	57,084	25,426	44.5	2.9	19,937	34.9	3.1	10,762	18.9	4.7
CARBURETOR/FUEL PUMP										
Carburetors Installed—New	1,588	537	33.8	1.5	812	51.1	.3	134	8.4	.3
Carburetor Kits Installed	10,799	2,886	26.7	9.4	5,968	55.3	7.7	1,588	14.7	6.3
Fuel Pumps Installed—New	5,787	2,445	42.2	3.7	2,996	39.7	4.0	727	12.6	3.8
Fuel Filters Replaced—Car	46,076	17,351	37.7	8.7	19,069	41.4	9.7	8,878	19.3	8.0
IGNITION/TUNE-UP										
Engine Tune-Ups—Car	60,431	20,428	33.8	2.4	27,042	44.7	4.4	11,542	19.1	3.4
Spark Plugs—New	336,645	116,624	34.7	3.5	151,910	45.2	4.9	59,179	17.6	5.4
ELECTRICAL SERVICE										
Batteries Installed	28,893	15,357	53.2	6.3	9,526	33.0	8.3	2,361	8.2	4.2
Battery Cables Installed	16,242	7,238	44.6	1.7	6,639	40.9	2.4	1.291	7.9	2.0
Alternators Installed—New	2,432	1,015	41.7	.7	900	37.0	.4	364	15.0	.6
Alternators Inst.—Rebuilt	14,102	7,030	49.9	4.2	5,502	39.0	3.6	903	6.4	2.1
Starters Installed—New	1,801	651	36.1	(.1)	785	43.6	(.8)	268	14.9	.5
Starters Inst.—Rebuilt	11,900	5,790	48.7	3.6	4,738	39.8	4.1	728	6.1	2.5
Voltage Regulators Inst.—New	6,683	2,622	39.2	.5	2,944	44.1	1.9	759	11.4	1.8
COOLING SYSTEM										
Systems Flushed	14,238	6,535	45.9	3.6	5,341	37.5	6.4	1,850	13.0	5.9
Radiators Replaced—Car	4,746	2,004	42.2	6.2	2,286	48.2	8.1	348	7.3	1.6
Radiator Hose Replaced	27,326	13,115	48.0	4.8	10,864	39.8	7.0	2,366	8.7	5.9
Belts Installed—All Types	56,217	26,243	46.7	7.1	21,553	38.3	9.5	6,096	10.8	7.9
Water Pumps Repl.—New	6,704	2,280	34.0	3.1	3,071	45.8	2.4	1,094	16.3	2.5
Water Pumps Repl.—Rebuilt	6,500	3,081	47.4	3.9	2,553	39.3	4.2	616	9.5	3.0
Antifreeze Sold—Gal	84,228	38,660	45.9	6.0	28,226	33.5	7.5	10,770	12.8	8.2

		Service Stations			Independent Repair Shops			New Car/Truck Dealers		
Job	Total Jobs* Performed (Add 000)	Number of Jobs Performed (Add 000)	% of Jobs	% Change from 1984	Number of Jobs Performed (Add 000)	% of Jobs	% Change from 1984	Number of Jobs Performed (Add 000)	% of Jobs	% Change from 1984
EXHAUST SYSTEM										
Mufflers Replaced—Car	14,369	6,207	43.2%	4.9%	5,932	41.3%	4.0%	2,004	13.9%	2.9%
Tail Pipes Replaced	12,940	5,653	43.7	3.8	5,395	41.7	3.4	1,420	11.0	2.1
Exhaust Pipes Replaced	6,767	2,843	42.0	2.4	2,792	41.3	1.5	760	11.2	.4
Catalytic Converters Repl.	1,279	253	19.5	8.2	287	22.1	5.5	713	55.0	7.1
TRANSMISSION/CLUTCH										
Standard Trans. Rebuilt	1,282	96	7.5	1.6	557	43.4	(2.0)	481	37.5	—
Automatic Trans. Rebuilt	2,753	253	9.2	6.4	1,051	38.2	1.9	1,346	48.9	4.0
Auto. Trans. Fluid-Quarts	106,738	43,408	40.7	4.6	38,156	35.7	3.6	19,863	18.6	6.9
Auto. Trans. Filters Repl.	14,325	5,224	36.5	4.8	5,889	41.1	4.1	2,663	18.6	6.2
Universal Joints Repl.—Car	11,683	5,064	43.3	2.7	5,491	47.0	1.1	894	7.7	.7
ALIGNMENT/SUSPENSION										
Wheels Balanced—Static/Dynamic	30,580	16,119	52.7	(.8)	9,778	32.0	(.4)	3,242	10.6	2.0
Wheels Balanced—Computer	43,904	22,486	51.2	12.9	15,333	34.9	16.8	5,582	12.7	8.4
Front-End Alignment	23,553	5,571	23.7	6.8	11,876	50.4	5.7	5,735	24.3	6.0
Shock Absorbers Replaced	25,809	10,301	39.9	.3	12,420	48.1	1.7	2,196	8.5	2.1
MacPherson Strut Cartridges Installed	4,400	1,037	23.6	9.4	2,632	59.8	9.0	650	14.8	3.8
BRAKES										
Drum Brake Shoes Installed	25,841	10,131	39.2	4.6	12,072	46.7	4.0	3,223	12.5	2.8
Master Cylinders Replaced—New	4,624	1,527	33.0	3.5	2,547	55.1	3.8	404	8.7	.9
Brake Drums Replaced	3,011	1,102	36.6	2.6	1,465	48.7	1.5	333	11.1	(1.2)
Brake Drums Turned/Grnd.	29,400	9,987	34.0	8.4	14,875	50.6	8.6	3,682	12.5	5.6
Disc Brake Pads Installed—Car	34,500	13,218	38.3	11.5	15,855	46.0	9.6	4,946	14.3	8.3
Disc Brake Rotors Resurf.	34,232	10,919	31.9	11.2	18,746	54.8	12.1	4,053	11.8	8.8
CHEMICALS										
Engine Oil Additives	13,275	7,012	52.8	.5	3,299	24.9	1.7	2,650	20.0	6.2
Gasoline Additives	18,007	11,569	64.2	4.2	4,490	24.9	2.9	1,548	8.6	3.1
Transmission Additives	4,526	2,038	45.0	1.1	1,794	39.6	2.6	647	14.3	1.4
Cooling System Rust Inhibitors	13,061	5,827	44.6	.9	4,602	35.2	3.8	1,422	10.9	2.4
Refrigerant (Freon) Repl.	56,277	20,586	36.6	6.2	23,942	42.5	10.8	9,821	17.5	6.4
ACCESSORIES/AIR CONDITIONING										
Windshield Wiper Refills	41,668	24,076	57.8	8.4	11,740	28.2	6.3	4,243	10.2	4.9
Air Conditioners Serviced	18,874	7,769	41.2	5.9	6,632	35.1	6.3	4,055	21.5	4.8
Air Conditioner Compressors Installed—New	1,103	270	24.5	4.5	450	40.8	3.2	341	30.9	2.6
Air Conditioner Compressors Inst.—Rebuilt	1,395	548	39.3	1.9	594	42.6	2.4	182	13.0	(1.0)

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*Segment figures and percentages will not add up to total—remainder is accounted for by self-service fleet locations.

U.S. Refineries and Capacities by States

(Crude Oil Operable Capacity on Jan. 1, 1985)

(* after number indicates capacity shut down but capable of being placed in operation within 90 days.)

Company	b/d
Alabama: Gulf	
Louisiana Land & Exploration Co., Mobile	80,000
Mobile Bay Refining Co., Chickasaw	26,600*
Total	**80,000**
	26,600*
Alabama: Inland	
Hunt Oil Co., Tuscaloosa	33,500
Vulcan Refining Co., Tuscaloosa	9,500*
Total	**33,500**
	9,500*
Alaska	
Atlantic Richfield Co., North Slope	22,000
Chevron U.S.A., Kenai	22,000
Mapco Petroleum Co., North Pole	46,500
Tesoro Petroleum Corp., Kenai	48,500
Total	**139,000**
Arkansas	
Cross Oil & Refining Co., Smackover	6,700
	2,700*
Crystal Oil Co., Stephens	3,200
MacMillan Petroleum, Inc., Norphlet	4,600
	1,280*
Tosco Corp., El Dorado	38,500
	8,500*
Total	**53,000**
	12,480*
California	
Atlantic Richfield Co., Carson	188,000
	27,000*
Beacon Oil Co., Hanford	17,300
Champlin Petroleum Co., Wilmington	60,000
Chevron U.S.A., Bakersfield	26,000
El Segundo	357,000
	48,000*
Richmond	294,000
	71,000*
Coastal Petroleum, Inc., Paloma	10,000
Conoco, Santa Maria	9,500
Edgington Oil Co., Long Beach	41,600
Exxon Co. U.S.A., Benicia	109,000
Fletcher Oil & Refining Co., Carson	29,500
Gibson Oil & Refining Co., Bakersfield	9,500
Golden Eagle Refining Co., Carson	16,170*
Golden West Refining Co., (Formerly Gulf Oil Corp.) Santa Fe Springs	40,600
Huntway Refining Co. of Northern California, Van Nuys	7,300
Huntway Refining Co., Wilmington	5,500
Kern Oil & Refinery Co., Bakersfield	21,400
Lunday-Thagard Oil Co., South Gate	8,100
MacMillan Petroleum, Inc., Long Beach	11,000
Marlex Oil & Refining, Long Beach	21,100
Mobil Oil Corp., Torrance	123,500
Newhall Refining Co. Inc., Newhall	21,400
Oxnard Refinery, Oxnard	4,000
Pacific Oasis Corp., Paramount	32,000
	14,500*
Pacific Refining Co., Hercules	55,000
Paramount Petroleum Corp., (Formerly Pacific Oasis Corp.) Paramount	32,000
San Joaquin Refining Co., Bakersfield	10,000
	14,300*
Shell Oil Co., Martinez	91,400
Wilmington	93,000
Sunland Refining Corp., Bakersfield	12,000
Texaco, Inc., (Formerly Getty Refining and Marketing Co.) Bakersfield	38,000
Wilmington	75,000*
Tosco Corp., Avon	126,000
Unocal Corp., (Formerly Union Oil Co. of California) Arroyo Grande	41,000
Rodeo	70,000
Wilmington	108,000
West Coast Oil Co., Oildale	10,000
	9,000*
Witco Chemical Corp., Oildale	0
Total	**2,080,600**
	296,470*
Colorado	
Asamera Oil (U.S.), Commerce City	26,000
Conoco, Commerce City	41,500
Gary Refining Corp., (Formerly Gary Western Corp.) Fruita	15,200
Total	**82,700**
Delaware	
Texaco Refining & Marketing Co., (Formerly Getty Refining & Marketing Co.) Delaware City	140,000
Georgia	
Amoco Oil Co., Savannah	24,000
Young Refining Corp., Douglasville	4,500
Total	**28,500**
Hawaii	
Chevron U.S.A., Honolulu	48,000
Illinois	
Clark Oil & Refining Corp., Blue Island	57,000
Hartford	47,500
Marathon Petroleum Co., (Formerly Marathon Oil Co.) Robinson	120,000
	75,000*
Mobil Oil Corp., Joliet	180,000
Motor Oils Refining Co., (Formerly Moreco Energy, Inc.) McCook	1,000
Shell Oil Co., Wood River	250,000
Texaco, Lawrenceville	51,000
	28,000*
Unocal Corp., (Formerly Union Oil Co. of California) Lemont	151,000
Total	**708,500**
	254,000*
Indiana	
Amoco Oil Co., Whiting	350,000
Gladieux Refinery, Fort Wayne	19,000
Indiana Farm Bureau Cooperative Assn., Mount Vernon	21,200
Kentucky Oil & Refining Co., Troy	1,000
Laketon Refining Corp., Laketon	7,900
Rock Island Refining Corp., Indianapolis	43,200
Total	**442,300**
Kansas	
Derby Refining Co., North Wichita	28,800
Farmland Industries, Coffeyville	56,500
Phillipsburg	26,400
National Cooperative Refinery Assn., McPherson	70,000
Pester Refining Co., El Dorado	33,250
Texaco Refining & Marketing Co., (Formerly Getty Refining and Marketing Co.) El Dorado	80,000
Total Petroleum, Arkansas City	42,500
Total	**337,450**
Kentucky	
Ashland Oil, Catlettsburg	213,400
B-T Energy Corp., Louisville	3,000
Kentucky Oil & Refining Co., Betsy Lane	600*
Somerset Refinery Inc., Somerset	5,500
Total	**221,900**
	600*
Louisiana: Gulf	
Calcasieu Refining Co., (Formerly CPI Oil & Refining Co.) Lake Charles	14,000
Canal Refining Co., Church Point	8,000
Citgo Petroleum Corp., Lake Charles	297,000
	23,000*
Clark Oil & Refining Corp., Mt. Airy	0
Conoco, Egan	6,500
West Lake	156,500
Exxon Co. U.S.A., Baton Rouge	437,000
	18,000*
Gulf Refining & Marketing Co., Belle Chasse	198,500
Hill Petroleum Co., Krotz Springs	46,000
	11,400*
International Processors, St. Rose	28,356*
Marathon Petroleum Co., Garyville	255,000
Murphy Oil U.S.A., Meraux	78,000
	12,200*
Placid Refining Co., Port Allen	45,000
Shell Oil Co., Norco	218,200
Tenneco Oil Co., Chalmette	133,000

Company	b/d
Texaco Refining & Marketing Co., Convent	225,000
Texas NAPCO, St. James (Formerly LaJet Inc.)	20,000*
Total	2,071,500
	101,556*

Louisiana: Inland

Calumet Refining Co., Princeton	4,400
Claiborne Gasoline Co., Lisbon	7,500
Kerr-McGee Corp., Cotton Valley	7,800
Dubach	10,000
Pennzoil Oil, (Formerly Atlas Processing Co.) Shreveport	46,200
Total	75,900

Maryland

Chevron U.S.A., Baltimore	14,200*
Total	14,200*

Michigan

Crystal Refining Co., Carson City	3,000
Lakeside Refining Co., Kalamazoo	5,000
Marathon Petroleum Co., Detroit	68,500
Total Petroleum, Alma	40,000
Total	116,500

Minnesota

Ashland Oil, St. Paul Park	67,143
Koch Refining Co., Rosemount	137,000
Total	204,143

Mississippi: Gulf

Chevron U.S.A., Pascagoula	295,000

Mississippi: Inland

Amerada Hess Corp., Purvis	30,000
Ergon Refining, Vicksburg	20,600
Southland Oil Co., Lumberton	5,800
Sandersville	11,000
Vicksburg Refining, Vicksburg	6,000
Total	73,400

Montana

Cenex, Laurel	33,650
	7,800*
Conoco, Billings	48,500
Exxon Co. U.S.A., Billings	42,000
Flying J, Cutbank	5,600*
Kenco Refining, Wolf Point	4,700
Montana Refining Co., (Formerly Simmons Refining Corp.) Great Falls	6,300
Total	136,150
	13,400*

Nevada

Nevada Refining Co., Tonopah	4,500

New Jersey

Amerada Hess Corp., Port Reading	68,000*
Chevron U.S.A., Perth Amboy	80,000
	88,000*
Exxon Co. U.S.A., Linden	100,000
Mobil Oil Corp., Paulsboro	100,000
Seaview Petroleum Co., Paulsboro	44,400
Texaco Refining & Marketing Co., Westville	90,000
Total	414,400
	68,000*

New Mexico

Bloomfield Refining Co., (Formerly Plateau, Inc.) Bloomfield	13,700
Giant Refining Co., (Formerly Giant Industries) Gallop	18,000
Navajo Refining Co., Artesia	30,400
Thriftway Oil Co., Bloomfield	6,100
Total	68,200

New York: East

Cibro Petroleum Products, Albany	41,850*

North Carolina

GNC Energy Corp., Greensboro	3,000*

North Dakota

Amoco Oil Co., Mandan	58,000
Flying J, Williston	5,000*
Total	58,000
	5,000*

Ohio: East

Ashland Oil, Canton	66,000

Ohio: West

Gulf Refining & Marketing Co., Cleves	43,700
Standard Oil Co. of Ohio, Lima	168,000
Toledo	120,000
Sun Co., Toledo	118,000
Total	449,700

Oklahoma

Allied Materials Corp., Stroud	7,800*
Conoco, Ponca City	134,000
Kerr-McGee Corp., Wynnewood	43,000
Sinclair Oil Corp., West Tulsa	50,000
Sun Co., Tulsa	85,000
Total Petroleum, Ardmore	62,000
Total	374,000
	7,800*

Oregon

Chevron U.S.A., Willbridge	15,000*

Pennsylvania: East

Atlantic Richfield Co., Philadelphia	125,000
BP Oil Corp., Marcus Hook	168,000
Gulf Refining & Marketing Co., Philadelphia	174,100
Sun Co., Marcus Hook	155,000
Total	622,100

Pennsylvania: West

American Refining Group, Indianola	180*
Ashland Oil, Freedom	6,800
Pennzoil Co., Rouseville	15,700
Quaker State Oil Refining Corp., Smethport	6,700
United Refining Co., (Formerly Coral Petroleum Inc.) Warren	60,000
Witco Chemical Corp., Bradford	6,841
Total	96,041
	180*

Tennessee

Mapco Petroleum Co., Memphis	60,000

Texas: Gulf

American Petrofina Co. of Texas, Port Arthur	90,000
Amoco Oil Co., Texas City	415,000
Atlantic Richfield Co., Houston	260,000
Champlin Petroleum Co., Corpus Christi	157,000
Charter International Oil Co., Houston	65,000*
Coastal States Petroleum Co., Corpus Christi	87,500
Conoco, Alvin/Texas City	33,274
Crown Central Petroleum Corp., Pasadena	100,000
Exxon Co. U.S.A., Baytown	494,000
Gulf Refining & Marketing Co., Port Arthur	328,500
	78,400*
Koch Refining Co., Corpus Christi	125,000
Marathon Petroleum Co., Texas City	49,000
	20,500*
Mobil Oil Corp., Beaumont	275,000
Petromax, Houston	2,000*
Phillips Petroleum Co., Sweeney	175,000
Saber Refining Co., Corpus Christi	0
Shell Oil Co., Deer Park	250,000
South Hampton Refining Co., Silsbee	18,100*
Southwestern Refining Co., Corpus Christi	104,000
Texaco Refining & Marketing Co., Port Arthur	200,000
	126,000*
Port Neches	31,000*
Texas City Refining, Texas City	119,600
Unocal Corp., Beaumont (Nederland)	120,000
Total	3,382,874
	322,900*

Texas: Inland

Amber Refining, Fort Worth	12,500
	7,200*
American Petrofina Co. of Texas, Big Spring	60,000
Chevron U.S.A., El Paso	76,000
Diamond Shamrock Refining & Marketing Co., Sunray	79,000
Three Rivers	47,000
Dorchester Refining Co., Mount Pleasant	26,500
White Deer	0
Flint Chemical Co., San Antonio	1,500
Howell Hydrocarbons Corp., San Antonio	9,900
La Gloria Oil & Gas Co., Tyler	46,000
Liquid Energy Corp., Bridgeport	10,000
Petrolite Corp., Kilgore	1,000
Phillips Petroleum Co., Borger	100,000
Pride Refining Inc., Abilene	42,750
Shell Oil Co., Odessa	30,600
Sigmor Corp., Three Rivers	43,500
Texaco Refining & Marketing Co., Amarillo	20,000
El Paso	17,000
Tropicana Energy Co., Euless	4,650*
Total	563,250
	11,850*

Utah

Amoco Oil Co., Salt Lake City	40,000
Chevron U.S.A., Salt Lake City	45,000
Crysen Corp., Woods Cross	12,500
Morrison Petroleum Co., Woods Cross	6,000*
Phillips Petroleum Co., Woods Cross	25,000
RMT Properties, Inc., (Formerly Husky Oil Co.) Salt Lake City	25,000
Seagull Refining Co., (Formerly Plateau, Inc.) Roosevelt	8,000
Total	155,500
	6,000*

Company	b/d
Virginia	
Amoco Oil Co., Yorktown	51,000
Virginia Oil & Refining Co., Jonesville	1,000
Total	**52,000**
Washington	
Atlantic Richfield Co., Ferndale	146,000
Chevron U.S.A., Richmond Beach	5,500
Crysen Corp., (Formerly Sound Refining) Tacoma	11,900
Mobil Oil Corp., Ferndale	71,500
Shell Oil Co., Anacortes	72,000
Texaco Refining & Marketing Co., Anacortes	78,000
U.S. Oil & Refining Co., Tacoma	26,400
Total	**411,300**
West Virginia	
Quaker State Oil Refining Corp., Newell	12,150
St. Mary's	4,520
Total	**16,670**
Wisconsin	
Murphy Oil Corp., Superior	39,000
Wyoming	
Amoco Oil Co., Casper	46,000
Little America Refining Co., Casper	24,500
Mountaineer Refining Co., La Barge	350
RMT Properties, Inc., (Formerly Husky Oil Co.) Cheyenne	33,600
Sinclair Oil Corp., Sinclair	53,000
Wyoming Refining Co., Newcastle	12,555
Total	**172,005**
Guam	
Guam Oil & Refining Co., Agana	43,900*
Puerto Rico	
Gulf Refining & Marketing Co., Bayamon	36,000
Phillips Puerto Rico Core, Guayama	0
Sun Co., Yabucoa	85,000
Total	**121,000**
Hawaiian Foreign Trade Zone	
Hawaiian Independent Refinery, Ewa Beach	62,000
Virgin Islands	
Amerada Hess Corp., St. Croix	395,000 150,000*

Source: Petroleum Supply Annual, 1984, Energy Information Administration, June 1985.

Lubricating Oil and Wax Capacities of U.S. Refineries

(All capacities in 000 b/d in 1985)

			Finished Lube Capacity					Wax Capacity	
Company	Location	Crude Capacity	A	B	C	D	Total	E	F
Allied Materials Corp.	Stroud, Okla.	8.0	0.8				0.8		0.2
Amoco Oil Co.	Casper, Wyo.	48.0	1.5		0.1		1.6	0.2	0.2
Amoco Oil Co.	Whiting, Ind.	376.0	6.2				6.2	0.6	
Ashland Oil, Inc.	Catlettsburg, Ky.	220.0	7.9				7.9		2.0
Ashland Oil, Inc.	Freedom, Pa.	6.5							
Atlantic Richfield Co.	Houston, Tex.	232.0	4.4			2.0	6.4	0.4	0.4
Calumet Refining Co.	Burnham, Ill.	0.0				0.6	0.6		
Calumet Refining Co.	Princeton, La.	4.4				3.2	3.2		
Chevron U.S.A. Inc.	Richmond, Calif.	365.0	3.0	2.3			5.3	1.2	1.0
Cit-Con Oil Corp.	Lake Charles, La.		10.0				10.0	1.0	0.8
Conoco Inc.	Ponca City, Okla.	134.0	2.0				2.0	0.2	
Cross Oil & Refining, Inc.	Smackover, Ark.	9.6				4.0	4.0		
Diamond Shamrock Corp.	Three Rivers, Tex.	2.0				2.0	2.0		
Exxon Co., U.S.A	Baton Rouge, La.	455.0	13.8		2.7		16.5	1.5	
Exxon Co., U.S.A	Baytown, Tex.	494.0	16.1	9.0		6.7	31.8		1.7
Farmland Industries, Inc.	Coffeyville, Kans.	56.5	2.5				2.5	0.2	
Gulf Refining and Marketing Co.	Port Arthur, Tex.	412.7	6.6	0.5	1.4	1.6	10.1		0.4
Lubrication Co. of America	Saugus, Calif.			0.5			0.5		
Macmillan Petroleum, Inc.	Norphlet, Ark.	6.0				2.2	2.2		
Mobil Oil Corp.	Beaumont, Tex.	325.0	9.2				9.2	1.3	0.3
Mobil Oil Corp.	Paulsboro, N.J.	99.7	7.1				7.1		0.3
Pennzoil Co.	Falling Rock, W. Va.	0.0			0.0		0.0	0.0	0.0
Pennzoil Co.	Rouseville, Pa.	15.7			4.4		4.4	0.6	0.4
Pennzoil Co., Atlas Processing Co.	Shreveport, La.	78.5	3.6		1.4	2.7	7.7	1.0	
Petrolite Corp.	Barnsdall, Okla.							0.4	
Petrolite Corp., Bareco Div.	Kilgore, Tex.	1.0							0.3
Phillips Petroleum Co.	Kansas City, Kans.	0.0	0.0				0.0		0.0
Quaker State Oil Ref. Corp.	Emlenton, Pa.							0.7	
Quaker State Oil Ref. Corp.	Farmers Valley, Pa.	6.5	2.5				2.5	0.4	0.5
Quaker State Ref. Corp.	Newell, W. Va.	11.7			3.6		3.6		0.8
Quaker State Oil Ref. Corp.	St. Mary's, W. Va.	4.9	1.6				1.6		0.3
Shell Oil Co.	Deer Park, Tex.	285.0	4.5			4.4	8.9	1.2	
Shell Oil Co.	Martinez, Calif.	91.4		3.5		0.3	3.8		
Shell Oil Co.	Wood River, Ill.	283.0	5.0				5.0		0.7
Standard Oil Co. (Ohio)	Lima, Ohio	168.0	2.0		0.4		2.4		
Sun Co., Inc.	Marcus Hook, Pa.	155.0	5.5			10.5	16.0	1.0	
Sun Co., Inc.	Tulsa, Okla.	85.0	7.8				7.8	0.8	
Sun Co., Inc.	Yabucoa, Puerto Rico	85.0	6.5				6.5		1.7
Texaco U.S.A	Port Arthur, Tex.	402.0	12.0	0.6	3.4	4.0	20.0	0.1	1.8
Union Oil Co. of Calif.	Nederland, Tex.	120.0	2.9				2.9	0.1	0.2
Union Oil Co. of Calif.	Rodeo, Calif.	70.0	4.0				4.0	0.6	1.5
Witco Chemical Corp.	Bradford, Pa.	7.6	1.6		0.9		2.5	0.2	
Witco Chemical Corp.	Oildale, Calif.	11.0		2.4		1.9	4.3		
	TOTAL:	5133.9	150.6	16.8	18.3	48.1	233.8	13.7	18.5

Canadian Refineries

Company	Location	Crude Capacity	A	B	C	D	Total	E	F
Gulf Canada Ltd.	Clarkson, Ontario	76.0	4.6				4.6		1.0
Imperial Oil Enterprises Ltd.	Sarnia, Ontario	126.0	5.1	0.7			5.8	0.6	1.6
Imperial Oil Enterprises Ltd.	Strathcona, Alberta	150.0	2.9				2.9		1.1
International Waxes, Ltd.	Agincourt, Ontario							0.8	
Shell Canada Ltd.	Montreal East, Quebec	31.0	3.4				3.4		1.0
	TOTAL:	383.0	16.0	0.7	0.0	0.0	16.7	1.4	4.7

Definitions: A—Solvent extracted paraffinic stocks; B—Solvent extracted naphthenic stocks; C—Unextracted paraffinic stocks; D—Unextracted naphthenic stocks; E—Fully refined, crude scale, and micro waxes; F—Semi-finished, slack waxes and petrolatums.

Source: National Petroleum Refiners Assn., Lubricating Oil and Wax Capacities, 1985.

U.S. Refineries and Capacities by Companies

(In descending order as of Jan. 1, 1985)

Important note: This listing includes capacity that is operation and capacity that is idle or shut down. In the latter case, this capacity can be restored to normal within 90 days. The Energy Information Administration says there were 223 operable refineries on Jan. 1, 1985, compared with a total of 247 the preceding year. The crude distillation capacity was 15.7 million b/d, compared with the year ago figure of 16.1 million b/d. For earlier data, see 1985 *NPN Factbook*.

Companies with a capacity of more than 100,000 b/d. Number of companies: 30; Total capacity: 13,639,917 b/d.

Company	b/d
Chevron Corp.[1]	
Chevron U.S.A.	
El Segundo, CA	405,000
Richmond, CA	365,000
Pascagoula, MS	295,000
Perth Amboy, NJ	168,000
El Paso, TX	76,000
Honolulu, HI	48,600
Salt Lake City, UT	45,000
Bakersfield, CA	26,000
Kenai, AK	22,000
Willbridge, OR	15,000
Baltimore, MD	14,200
Richmond Beach, WA	5,500
Total	1,484,700
Exxon Corp.	
Exxon Co. U.S.A.	
Baytown, TX	494,000
Baton Rouge, LA	455,000
Benicia, CA	109,000
Linden, NJ	100,000
Billings, MT	42,000
Total	1,200,000
Texaco Inc.	
Texaco Refining & Marketing[2]	
Port Arthur, TX	326,000
Convent, LA	225,000
Delaware City, DE[3]	140,000
Westville, NJ	90,000
El Dorado, KS[3]	80,000
Lawrenceville, IL	79,000
Anacortes, WA	78,000
Wilmington, CA	75,000
Bakersfield, CA[3]	38,000
Port Neches, TX	31,000
Amarillo, TX	20,000
El Paso, TX	17,000
Total	1,199,000
Shell Oil Co.	
Wood River, IL	250,000
Deer Park, TX	250,000
Norco, LA	218,200
Wilmington, CA	93,000
Martinez, CA	91,400
Anacortes, WA	72,000
Odessa, TX	30,600
Total	1,005,200
Standard Oil Co. of Indiana	
Amoco Oil Co.	
Texas City, TX	415,000
Whiting, IN	350,000
Mandan, ND	58,000
Yorktown, VA	51,000
Casper, WY	48,000
Salt Lake City, UT	40,000
Savannah, GA	24,000
Total	986,000
Gulf Oil Corp.	
Gulf Refining & Marketing Co.[4]	
Port Arthur, TX	406,900
Belle Chasse (Alliance), LA	198,500
Philadelphia, PA	174,100
Cleves (Cincinnati), OH	43,700
Total	823,200
Atlantic Richfield Co.	
Houston, TX	260,000
Carson (Watson), CA	215,000
Ferndale (Cherry Point), WA	146,000
Philadelphia, PA	125,000
North Slope, AK	22,000
Total	768,000
Mobil Oil Corp.	
Beaumont, TX	275,000
Joliet, IL	180,000
Torrance, CA	123,500
Paulsboro, NJ	100,000
Ferndale, WA	71,500
Total	750,000
U.S. Steel Corp.	
Marathon Petroleum Co.[5]	
Garyville, LA	255,000
Robinson, IL	195,000
Texas City, TX	69,500
Detroit, MI	68,500
Total	588,000
Unocal Corp.[6]	
Lemont (Chicago), IL	151,000
Beaumont (Nederland), TX	120,000
Wilmington, CA	108,000
Rodeo (San Francisco), CA	70,000
Arroyo Grande, CA	41,000
Total	490,000
Standard Oil Co. of Ohio	
Lima, OH	168,000
Toledo, OH	120,000
BP Oil Corp.	
Marcus Hook, PA	168,000
Total	456,000
E.I. Du Pont De Nemours & Co.	
Conoco, Inc.	
West Lake (Lake Charles), LA	156,500
Ponca City, OK	134,000
Billings, MT	48,500
Alvin/Texas City, TX	33,274
Denver (Commerce City), CO	41,500
Santa Maria, CA	9,500
Egan (Acadia), LA	6,500
Total	429,774
Sun Co. Inc.	
Marcus Hook, PA	155,000
Toledo, OH	118,000
Tulsa, OK	85,000
Total	358,000
Ashland Oil Inc.	
Catlettsburg, KY	213,400
St. Paul Park, MN	67,143
Canton, OH	66,000
Freedom, PA	6,800
Total	353,343
Southland Corp.	
Citgo Petroleum Corp.	
Lake Charles, LA	320,000
Phillips Petroleum Co.	
Sweeny, TX	175,000
Borger, TX	100,000
Woods Cross, UT	25,000
Total	300,000
Koch Industries	
Koch Refining Co.	
Rosemount, MN	137,000
Corpus Christi, TX	125,000
Total	262,000
Union Pacific Corp.	
Champlin Petroleum Co.	
Corpus Christi, TX	157,000
Wilmington, CA	60,000
Total	217,000
Tosco Corp.	
Avon, CA	126,000
El Dorado, AR	47,000
Total	173,000
The Coastal Corp.	
Coastal States Petroleum Co.	
Corpus Christi, TX	87,500
Pacific Refining Co.	
Hercules, CA	55,000
Derby Refining Co.	
North Wichita, KS	28,800
Total	171,300
Kerr-McGee Corp.	
Kerr-McGee Refining Corp.[7]	
Wynnewood, OK	43,000
Dubach, LA	10,000
Cotton Valley, LA	7,800
Southwestern Refining Co.	
Corpus Christi, TX	104,000
Total	164,800
American Petrofina, Inc.	
American Petrofina Co. of Texas	
Port Arthur, TX	90,000
Big Spring, TX	60,000
Total	150,000
Total Petroleum North America Ltd.	
Total Petroleum Inc.	
Ardmore, OK	62,000
Arkansas City, KS	42,500
Alma, MI	40,000
Total	144,500
Tenneco Oil Co.	
Chalmette, LA	133,000
Murphy Oil U.S.A. Inc.	
Meraux, LA	90,200
Superior, WI	39,000
Total	129,200
Earl Holding Co.	
Sinclair Oil Corp.	
Sinclair, WY	53,000
Tulsa, OK	50,000
Little America Refining Co.	
Casper, WY	24,500
Total	127,500
Diamond Shamrock Corp.	
Diamond Shamrock Refining & Marketing Co.	
Sunray, TX	79,000
Three Rivers, TX[8]	47,000
Total	126,000
Agway Petroleum Corp.	

Company	b/d
Texas City Refining, Inc.	
Texas City, TX	119,600
Mid-America Pipe Line System	
Mapco Petroleum Co.	
Memphis, TN	60,000
North Pole, AK	45,000
Total	105,000
Apex Oil Co.	
Clark Oil & Refining Corp.	
Blue Island, IL	57,000
Hartford (Wood River), IL	47,500
Total	104,500

Companies with capacity of 30,001 to 100,000 b/d. Number of companies: 24; Total capacity: 1,319,870 b/d.

Company	b/d
Crown Central Petroleum Corp.	
Pasadena, TX	100,000
Amerada-Hess Corp.	
Port Reading, NJ	68,000
Purvis, MS	30,000
Total	98,000
Farmland Industries Inc.	
Coffeyville, KS	56,500
Phillipsburg, KS	26,400
Total	82,900
Louisiana Land & Exploration Co.	
Mobile, AL	80,000
United Refining Co.[9]	
Warren, PA	60,000
Vulcan Refining Co.	
Cordeva, AL	9,500
Total	69,500
Paramount Petroleum Corp.	
Paramount, CA[10]	46,500
Bakersfield, CA[11]	21,500
Total	68,000
Charter International Oil Co.	
Houston, TX	65,000
Pennzoil Co.	
Shreveport, LA[12]	46,200
Rouseville, PA	15,700
Total	61,900
RMT Properties, Inc.[13]	
Cheyenne, WY	33,600
North Salt Lake, UT	25,000
Total	58,600
Tesoro Petroleum Corp.	
Kenai, AK	48,500
Texas Eastern Corp.	
La Gloria Oil & Gas Co.	
Tyler, TX	46,000
Placid Oil Co.	
Placid Refining Co.	
Port Allen, LA	45,000
Seaview Petroleum Co.	
Paulsboro, NJ	44,400
Rock Island Refining Corp.	
Indianapolis, IN	43,200
Pride Refining Inc.	
Abilene, TX	42,750
Cirillo Brothers Oil Co.	
Cibro Petroleum Products, Inc.	
Albany, NY	41,850
Triad Terminal Corp.[14]	
Edgington Oil Co.	
Long Beach, CA	41,600
Cenex[15]	
Laurel, MT	41,450
Thrifty Oil. Co.	
Golden West Refining Co.	
Santa Fe Springs, CA	40,600
Hunt Oil Co.	
Tuscaloosa, AL	33,500
American Ultramar Ltd.	
Beacon Oil Co.	
Hanford, CA	17,300
Golden Eagle Refining Co.	
Carson, CA	16,170
Total	33,470
Pester Corp.	
Pester Refining Co.	
El Dorado, KS	33,250
Holly Corp.	
Navado Refining Co.	
Artesia, NM	30,400

Companies with capacity 10,001 to 30,000 b/d. Number of companies: 25; Total capacity: 513,761 b/d.

Company	b/d
Fletcher Oil & Refining Co.	
Carson, CA	29,500
Gary Energy Corp.	
Gary Refining Corp.[16]	
Fruita, CO	15,200
Bloomfield Refining Co.[17]	
Bloomfield, NM	13,700
Total	28,900
International Processors	
St. Rose, LA	28,356
Mobile Bay Refining Co.	
Chickasaw, AL	26,600
Time Oil Co.	
U.S. Oil & Refining Co.	
Tacoma, WA	26,400
Asamera Oil (U.S.)	
Commerce City (Denver), CO	26,000
Crysen Corp.	
Woods Cross, UT	12,500
Tacoma, WA	11,900
Total	24,400
San Joaquin Refining Co.	
Bakersfield, CA	24,300
Quaker State Oil Refining Corp.	
Newell, WVA	12,150
Bradford, PA	6,700
St. Mary's, WVA	4,520
Total	23,370
Kern Oil & Refinery Co.	
Bakersfield, CA	21,400
Pauley Petroleum	
Newhall Refining Co.	
Newhall, CA	21,400
Indiana Farm Bureau Cooperative	
Mount Vernon, IN	21,200
Ergon Refining	
Vicksburg, MS	20,600
Texas Napco Inc.	
St. James, LA	20,000
E-Z Serv Inc.	
Amber Refining Co.	
Fort Worth, TX	19,700
Gladieux Refinery	
Fort Wayne, IN	19,000
West Coast Oil Co.	
Oildale, CA*	19,000
Giant Industries Inc.	
Giant Refining Co.[19]	
Gallup (Ciniza), NM	18,000
MacMillan Ring-Free Oil Co.	
MacMillan Petroleum Inc.	
Long Beach, CA	11,000
Norphlet, AK	5,880
Total	16,880
Vermont Gas Systems (VGS)	
Southland Oil Co.	
Sandersville, MS	11,000
Lumberton, MS	5,800
Total	16,800
Calcasieu Refining Co.[20]	
Lake Charles, LA	14,000
Huntway Refining Co.	
Benicia, CA[21]	7,300
Wilmington, CA	5,500
Total	12,800
Wyoming Refining Co.[22]	
Newcastle, WY	12,555
World Oil Co.	
Sunland Refining Co.	
Bakersfield, CA	12,000
Flying J Inc.	
Cutbank, MT	5,600
Williston, ND*	5,000
Total	10,600

Companies with capacity 10,000 b/d or less. Number of companies: 35; Total capacity: 185,221.

Company	b/d
Coastal Petroleum Refiners, Inc.[23]	
Paloma, CA	10,000
Mitchell Energy Corp.	
Liquid Energy Corp.	
Bridgeport, TX	10,000
Howell Corp.	
Howell Hydrocarbons Corp.[24]	
San Antonio, TX	9,900
Gibson Oil & Refining Co.	
Bakersfield, CA	9,500
Moore & Munger Inc.	
Cross Oil & Refining Co.	
Smackover, AR	9,400
Thagard Oil Co.	
South Gate, CA	8,100
Anchor Gasoline Corp.	
Canal Refining Co.	
Church Point, LA	8,000
Linmar Ventures/Theo Davies	
Seagull Refining Co.[17]	
Roosevelt, UT	8,000

Company	b/d
Lakeside Refining Co.	
Kalamazoo, MI	5,000
Crystal Refining Co.	
Carson City, MI	3,000
Total	8,000
Laketon Refining Corp.	
Laketon, IN	7,900
Allied Materials Corp.	
Stroud, OK	7,600
Claiborne Gasoline Co.	
Lisbon, LA	7,500
Witco Chemical Corp.	
Bradford, PA	6,841
Montana Refining Co.[25]	
Great Falls, MT	6,300
Thriftway Co.	
Bloomfield, NM	6,100
Vicksburg Refining Inc.	
Vicksburg, MS	6,000
Morrison Petroleum Co.	
Woods Cross, UT	6,000
Somerset Refinery Inc.	
Somerset, KY	5,500
Kenco Refining Inc.	
Wolf Point, MT	4,700
Tropicana Energy Co.	
Euless, TX	4,650
Nevada Refining Co.	
Tonopah, NV	4,500
Young Refining Corp.	
Douglasville, GA	4,500
Calumet Industries	
Calumet Refining Co.	
Princeton, LA	4,400
Oxnard Refinery	
Oxnard, CA	4,000
Crystal Oil Co.	
Stephens, AR	3,200
B-T Energy Corp.	
Louisville, KY	3,000
GNC Energy Corp.	
Greensboro, NC	3,000
Petromax Refining Co.	
Houston, TX	2,000
Kentucky Oil & Refining Co.	
Troy, IN	1,000
Betsy Lane, KY	600
Total	1,600
Flint Chemical Co.	
San Antonio, TX	1,500
Motor Oils Refining Co.[26]	
McCook, IL	1,000
Petrolite Corp.	
Kilgore, TX	1,000
Virginia Oil & Refining Co.	
Jonesville, VA	1,000
Mountaineer Refining Co.	
La Barge, WY	200
American Refining Group Inc.	
Indianola, PA	180

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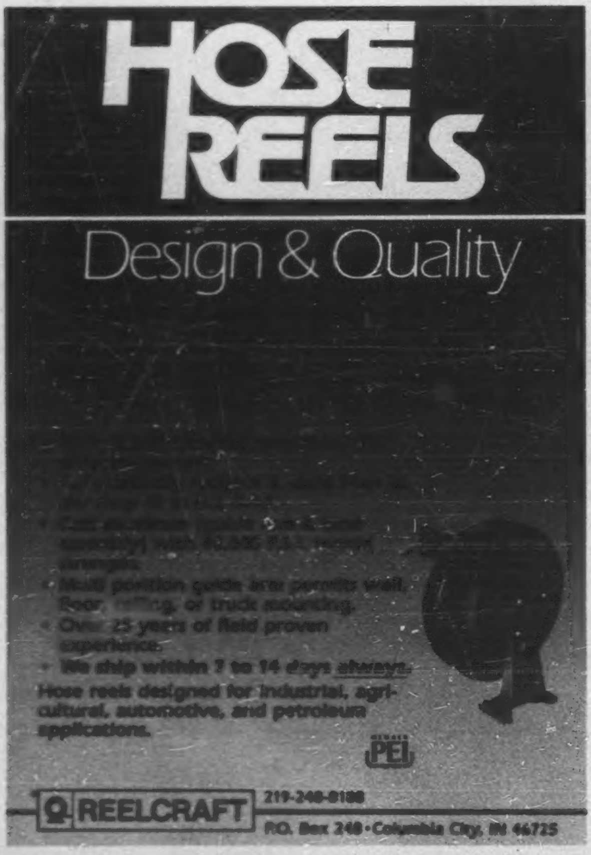
[1] Formerly Standard Oil Co. of California
[2] Formerly Texaco Inc.
[3] Formerly Getty Refining & Marketing Co.
[4] Formerly Gulf Oil Corp.
[5] Formerly Marathon Oil Co.
[6] Formerly Union Oil Co. of California
[7] Formerly Kerr-McGee Corp.
[8] Formerly Sigmor Corp.
[9] Formerly Coral Petroleum, Inc.
[10] Formerly Pacific Oasis Corp.
[11] Formerly Independent Valley Energy Co.
[12] Formerly Atlas Processing Co.
[13] Formerly Husky Oil Co.
[14] Formerly Penn Central Energy Corp.
[15] Formerly Farms Union Central Exchange, Inc.
[16] Formerly Gary Western Co.
[17] Formerly Plateau, Inc.
[18] Formerly Sound Refining, Inc.
[19] Formerly Giant Industries, Inc.
[20] Formerly CPI Oil & Refining, Inc.
[21] Formerly Huntway Refining Co. of Northern California.
[22] Formerly Hermes Products Co.
[23] Formerly Coastal Petroleum Co.
[24] Formerly Howell Corp.
[25] Formerly Simmons Refining Corp.
[26] Formerly Moreco Energy, Inc.

Source: Energy Information Administration, Petroleum Supply Annual, 1984, Vol. 1, published June 1985.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Changes in U.S. Refinery Capacity in 1985

On Jan. 1, 1986, the U.S. had a total of 218 operable refineries. There were 11 shutdowns in 1985 and 6 start-ups reflecting new or reactivated units for a net loss of five refineries during the year. Operable capacity was rated at 15.7 million b/d, virtually unchanged from the year-ago level. In 1984, there were 26 shutdowns and two start-ups, but most of the losses were smaller units—less than 30,000 b/d. It would appear that the sharp declines of recent years are bottoming out and the industry is re-stabilizing itself. Since Jan. 1, 1981, crude oil distillation capacity has declined almost 3 million b/d while the refinery population has fallen from 324 units in 1981 to 218 at the beginning of 1986.

The table below gives the closures and start-ups in 1985, and the two start-ups that were recorded for 1984. The longer table that follows gives a complete spellout on closures from 1981 through 1984.

Refinery Closings Since Jan. 1, 1985

		Crude Distillation Capacity (B/CD)	Total Downstream Capacity (B/SD)	Years in Operation
Allied Materials Corp.	Stroud, Okla.	7,600	2,500	37+
B-T Energy Corp.	Louisville, Ky.	3,000	0	3
Coastal Petroleum Refiners Inc.	Bakersfield, Calif.	10,000	0	6
Damson Gas Processing Corp.	White Deer, Texas	0	1,000	12
Flint Chemical Co.	San Antonio, Texas	1,500	0	23
Gary Refining Corp.	Fruita, Colo.	15,200	18,100	19
Golden Eagle Refinery Co. Inc.	Carson, Calif.	16,170	0	37+
International Processors	St. Rose, La.	28,356	14,000	6
Texaco Refining & Marketing Inc.	Amarillo, Texas	20,000	24,400	37+
Texaco Refining & Marketing Inc.	Lawrenceville, Ill.	79,000	134,000	37+
Vicksburg Refining, Inc.	Vicksburg, Miss.	6,000	0	7
Total		186,826	194,000	

New and Reactivated Refineries Since Jan. 1, 1985

				Status
Atlantic Richfield Co.	Kuparuk River, Alaska	12,000	0	N
Barrett Refinery Corp.	Thomas, Okla.	11,600	0	R
Hill Petroleum Co.	Krotz Springs, La.	57,400	62,000	R
Primary Oil & Energy Corp.	Chester, Va.	2,000	0	N
Seminole Refinery Corp.	St. Marks, Fla.	17,000	10,115	R
Trifinery	Corpus Christi, Texas	30,000	30,000	R
Total		130,000	102,115	

Reactivated Refineries in 1984

Virginia Oil & Refining Co.	Jonesville, Va.	1,000	0	R
Amerada Hess Corp.	Port Reading, N.J.	68,000*	0	R

*Idle

Source: Petroleum Supply Monthly, Energy Information Administration, November 1985.

U.S. Refinery Closings—1981 through 1984

PAD District/Refinery	Location	Crude Distillation Capacity (B/CD)	Total Downstream Capacity (B/SD)	Date of Last Operation	Date Shutdown	Years in Operation
District 1						
Amoco Oil Co.	Baltimore, Md.	15,000	0	1/82	3/82	25+
Ashland Oil, Inc.	Buffalo, N.Y.	64,000	106,500	7/82	12/84	36+
ATC Petroleum Inc.	Wilmington, N.C.	11,900	0	7/81	1/82	8
ATC Petroleum Inc.	Newington, N.H.	13,400	0	7/81	1/82	7
ELK Refining Co., div. of Pennzoil Co. Inc.	Falling Rock, W.Va.	5,600	2,000	12/82	1/83	25+
Manatee Energy Co.	Port Manatee, Fla.	28,400	0	5/81	10/81	2
Mobil Oil Corp.	Buffalo, N.Y.	43,000	67,000	5/81	7/81	25+
Quaker State Oil Refining Corp.	Emlenton, Pa.	0	2,980	12/83	12/83	25+
Seminole Refining Inc.	St. Marks, Fla.	15,000	10,000	12/81	4/82	25+
Total		**196,300**	**188,480**	—	—	—
District 2						
Amoco Oil Co.	Sugar Creek, Mo.	104,000	185,500	5/82	6/82	25+
Amoco Oil Co.	Wood River, Ill.	104,000	127,000	5/81	10/81	25+
Ashland Oil, Inc.	Findlay, Ohio	20,400	8,000	2/82	12/84	36+
Ashland Oil, Inc.	Louisville, Ky.	25,200	29,000	4/82	12/84	36+
Champlin Petroleum Co.	Enid, Okla.	53,800	56,500	6/83	12/83	25+
Conoco Inc.	Wrenshall, Minn.	23,500	25,700	5/81	9/81	5
CRA, Inc.	Scottsbluff, Neb.	5,600	3,650	5/82	6/82	25+
Dillman Oil Recovery Inc.	Oblong, Ill.	1,200	0	1/81	2/82	4
Dow Chemical U.S.A.	Bay City, Mich.	20,000	0	5/80	9/81	25+
E-Z Serv Refining Inc.	Shallow Water, Kan.	9,500	0	4/81	2/82	25+
Energy Cooperative Inc.	East Chicago, Ind.	126,000	190,000	5/81	6/82	25+
Energy Development	Crossville, Ill.	1,000	0	2/81	4/81	22
Gulf Oil Corp.	Toledo, Ohio	50,300	61,800	6/81	11/81	25+
Hudson Refining Co. Inc.	Cushing, Okla.	19,000	12,150	12/82	11/83	6
Indiana Refining Inc.	Princeton, Ind.	5,000	0	12/80	2/81	23
Industrial Fuel and Asphalt of Indiana Inc.	Hammond, Ind.	7,600	0	12/81	6/82	25+
Mid-America Refining Co. Inc.	Chanute, Kan.	3,000	1,800	3/81	7/82	25+
Mobil Oil Corp.	Augusta, Kan.	50,000	83,900	9/83	9/83	25+
Northland Oil and Refining Co.	Dickinson, N.D.	5,000	0	2/81	2/82	7
Oklahoma Refining Co.	Cyril, Okla.	12,750	23,100	12/84	12/84	36+
Oklahoma Refining Co.	Thomas, Okla.	11,600	0	12/84	12/84	4
Okmulgee Refining Co.	Okmulgee, Okla.	25,000	13,200	6/82	1/83	25+
Phillips Petroleum Co.	Kansas City, Kan.	80,000	156,700	8/82	9/82	25+
Texaco Inc.	Lockport, Ill.	72,000	136,000	4/81	10/81	25+

PAD District/Refinery	Location	Crude Distillation Capacity (B/CD)	Total Downstream Capacity (B/SD)	Date of Last Operation	Date Shutdown	Years in Operation
Texas American Petrochemical Inc.	West Branch, Mich.	11,500	3,200	9/81	2/82	25 +
Tonkawa Refining Co.	Arnett, Okla.	12,000	6,000	1984	1984	16
Tosco Corp.	Duncan, Okla.	47,000	85,000	1984	1984	4
Wireback Oil Co.	Plymouth, Ill.	1,800	1,800	2/81	3/81	25 +
Total		**907,750**	**1,212,000**	—	—	—
District 3						
Adobe Refining Co., div. of Funding Systems Refining Corp.	La Blanca, Texas	5,200	0	11/81	1/82	25 +
Bayou State Oil Corp.	Hosston, La.	3,000	0	1/81	3/82	25 +
Brio Refining Inc.	Friendswood, Texas	12,500	0	9/82	1/83	4
Bronco Refining Co.	Houston, Texas	2,250	0	4/81	7/82	1
Carbonit Refining Inc.	Hearne, Texas	11,000	0	2/81	1/82	6
Caribou-Four Corners, Inc.	Farmington, N.M.	2,200	2,400	1984	1984	19
Celeron Oil & Gas Co.	Mermentau, La.	11,000	0	1984	1984	6
Clinton Manges	Palestine, Texas	6,000	0	7/81	7/82	25 +
Copano Refining Co.	Ingleside, Texas	11,100	0	9/81	2/82	4
Dorchester Refining Co.	Mt. Pleasant, Texas	26,500	38,800	1984	1984	6
Dow Chemical U.S.A.	Freeport, Texas	190,000	143,000	8/81	6/82	1
Eagle Refining Corp.	Jacksboro, Texas	1,800	0	3/81	7/82	1
Eddy Refining Co.	Houston, Texas	3,250	0	1984	1984	36 +
Erickson Refining Corp.	Pt. Neches, Texas	30,000	0	12/81	8/83	4
Evangeline Refining Co.	Jennings, La.	4,500	0	12/82	1/83	25 +
GHR Energy Corp.	Good Hope, La.	300,000	433,000	12/82	9/83	15
Giant Industries Inc.	Farmington, N.M.	13,500	5,000	5/82	11/82	7
Gulf Oil Corp.	Venice, La.	28,700	46,300	4/81	12/81	13
Hill Petroleum Co.	Knots Springs, Texas	57,400	62,000	1984	1984	7
Independent Refining Corp.	Winnie, Texas	50,000	63,000	10/81	8/83	23
Lake Charles Refining Co.	Lake Charles, La.	28,000	0	4/81	2/82	2
Listo Refining Co.	Donna, Texas	3,500	0	7/82	12/82	4
Longview Refining Co.	Longview, Texas	14,000	14,000	12/81	4/82	25 +
Mallard Resources Inc.	Gueydan, La.	7,400	0	11/83	12/83	4
Marion Corp.	Theodore, Ala.	25,000	14,500	3/83	9/83	15
McTan Refining Corp.	St. James, La.	19,300	0	7/81	8/83	6
Mid-Gulf Energy Corp.	Ingleside, Texas	39,400	20,000	1984	1984	3
Natchez Refining Co.	Natchez, Miss.	16,000	0	6/82	9/82	2
Petraco-Valley Oil Refining Co.	Brownsville, Texas	12,300	0	3/83	12/83	5
Pioneer Refining Ltd.	Nixon, Texas	15,000	15,900	4/83	12/83	9
Placid Oil Co.	Mont Belvieu, Texas	8,500	0	1/82	7/82	2
Port Petroleum Co.	Stonewall, La.	3,200	0	1984	1984	5
Quintana Petrochem Co.	Corpus Christi, Texas	33,000	54,000	1984	1984	30
Quitman Refining Co.	Quitman, Texas	6,600	0	4/82	6/82	4
Rio Grande Crude Refining	Brownsville, Texas	9,500	0	6/81	6/82	3
Rio Grande Recovery Systems Inc.	Brownsville, Texas	1,000	0	5/81	2/82	2
Schulze Processing Inc.	Tallulah, La.	1,760	0	5/81	8/82	4
Sentry Refining Inc.	Corpus Christi, Texas	25,000	0	1/82	2/82	4
Shepard Oil Co.	Jennings, La.	10,000	0	5/81	2/82	4
Shore, Inc.	Kilgore, Texas	550	0	3/83	7/83	3
Sooner Refining Co.	Darrow, La.	8,000	32,200	1/82	2/82	2
South Hampton Refining Co.	Silsbee, Texas	18,100	28,000	12/82	12/84	24
Southern Union Refining Co.	Monument, N.M.	5,400	0	1/81	10/81	25 +
Southern Union Refining Co.	Lovington, N.M.	36,100	18,500	1984	1984	8
Southland Oil Co.	Yazoo City, Miss.	5,500	3,080	2/81	7/81	25 +
T & S Refining Co.	Jennings, La.	10,500	0	7/81	3/82	2
Tesara Petroleum Co.	Carrizo Springs, Texas	26,100	3,500	1984	1984	27
Texas Refining Co.	Midland, Texas	2,500	0	4/81	6/81	1
Texas Standard Refining Inc.	Houston, Texas	1,800	0	1/81	10/81	(S)
Thriftway Oil Co.	Graham, Texas	1,184	0	4/81	11/83	25 +
Tipperary Refining Co.	Ingleside, Texas	7,320	0	1/82	3/82	4
Warrior Asphalt Co.	Holt, Ala.	5,500	2,000	1984	1984	30
Wickett Refining Co.	Wickett, Texas	8,000	0	1/76	2/82	25 +
Total		**1,185,214**	**999,180**	—	—	—
District 4						
Caribou-Four Corners Inc.	Woods Cross, Utah	8,400	8,200	1984	1984	21
C & H Refinery Inc.	Lusk, Wyo.	180	0	1/81	2/82	25 +
Glacier Park Co.	Osage, Wyo.	10,000	0	2/81	3/82	4
Glenrock Refinery Inc.	Glenrock, Wyo.	6,000	0	4/81	9/81	5
Husky Oil Co.	Cody, Wyo.	11,500	17,800	6/82	9/82	25 +
Sage Creek Refining Co.	Cowley, Wyo.	1,000	0	1/82	6/82	17
Silver Eagle Oil Inc.	La Barge, Wyo.	1,500	0	10/82	8/83	9
Southwestern Refining Co.	La Barge, Wyo.	1,040	0	4/81	8/81	7
Texaco Inc.	Casper, Wyo.	21,000	35,500	3/82	7/82	25 +
Total		**60,620**	**61,500**	—	—	—
District 5						
Arizona Fuels Corp.	Fredonia, Ariz.	6,000	0	2/83	9/83	11
Demenno-Kerdoon	Compton, Calif.	10,000	2,000	1/83	8/83	6
ECO Petroleum Inc.	Long Beach, Calif.	0	7,000	1984	1984	8
Marlex Oil & Refining Co.	Los Angeles, Calif.	21,100	0	1984	1984	7
Powerine Oil Co.	Santa Fe Springs, Calif.	44,120	100,100	1984	1984	34
Quad Refining Corp.	Bakersfield, Calif.	7,000	0	8/80	10/81	2
Road Oil Sales Inc.	Bakersfield, Calif.	6,000	0	1/81	1/82	9
Sabre Oil and Refining Inc.	Bakersfield, Calif.	10,000	0	4/81	11/82	10
Tosco Corp.	Bakersfield, Calif.	38,800	80,000	1984	1984	33
United Independent Oil Co.	Tacoma, Wash.	730	0	7/80	3/82	7
U.S.A. Petroleum Corp.	Ventura, Calif.	24,000	7,000	12/84	12/84	7
Total		**176,750**	**203,100**	—	—	—
U.S. Total		**2,526,634**	**2,664,260**	—	—	—

Source: Energy Information Administration, Petroleum Supply Annual 1984. Vol. 1, published June 1985.

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August 1986 $4.50

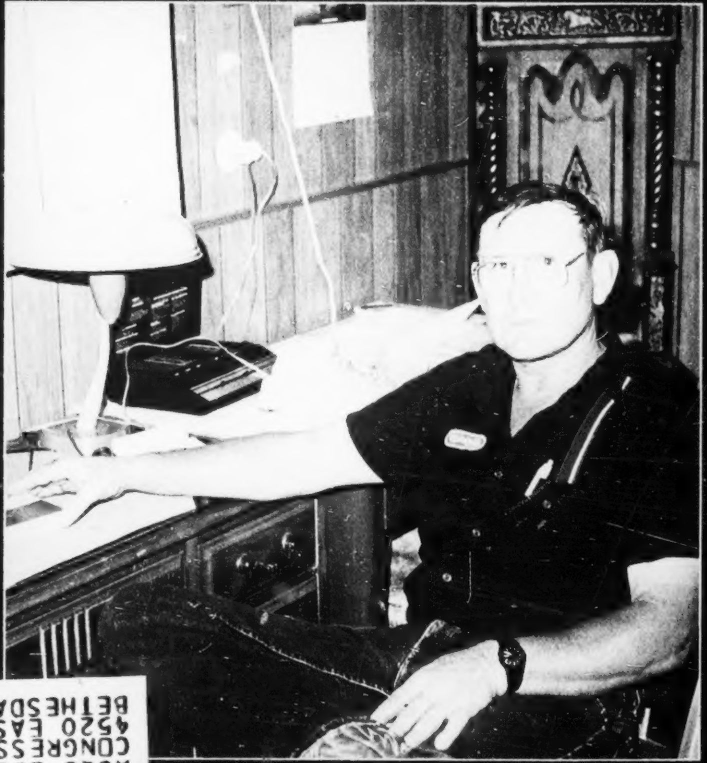
What Should You Do With Your Bulk Plant?
Trends: A New Pricing Pattern Takes Shape
Utah Dealer Gambles on Multi-profit Center

NPN

National Petroleum News

The Tough 'Little Guys'

A DYING BREED?



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NATIONAL PETROLEUM NEWS

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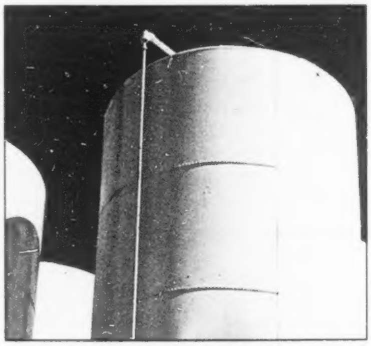
For several years now, suppliers have been telling their jobbers that the era of the small jobber is past. This month's cover report looks at a self-described small jobber and how he uses his size to his advantage. **Page 40**

Utah dealer Chris Buttars just took the wraps off his new $800,000 service center and gave us a close-up look. This 'multi-profit' center offers motorists everything from a C-store to quick lube to old-fashioned full-service. **Page 44**



Once common sight, bulk storage plants have dwindled in numbers until only a few remain today. Strict regulations and economics are the causes. Will the fallout continue? **Page 48**

• TRENDS

Do Fat Jobber Margins Signal Market Shift?

Some oil marketers are beginning to wonder if a new pricing pattern isn't developing, one that might see the wild price gyrations during the first half of this year continue well into 1987.

If such a trend is in the making, look for two things to happen. First, jobber margins on an annual or six month basis should improve. They already have, dramatically, during the first half of this year. Second, aggressive independent chain retailers will likely pick up a lot of market share at the expense of major brand dealers.

It's believed that some of the gasoline chains which practice the "low-markup, high-volume" theory of marketing have already made some spectacular gains. As the July 4th holiday approached, the stage seemed to be set for them to pick up still more volume.

As had happened for earlier this year, a very wide spread developed again in June between the prices jobbers and dealers pay for product.

Late in June, there was a spread of about 20¢ gal. between jobber buying prices and dealer tankwagon (DTW) postings. Ordinarily, the differential between these prices is about 3.5¢.

With such wide spreads, independent chain retailers and convenience store chains were having a field day again. One East Coast marketer who describes himself as a "discounter" said his average rack-to-retail margin in late-June was 12¢ gal., although he was then posting retail prices 5¢ to 6¢ below branded competition.

That wasn't an unusual situation. In the Sun Belt region, other aggressive chain retailers were once again taking their lower product buying prices to their pump islands. In Texas, just before the big July 4th weekend, some chains were posting 75.9¢ for leaded regular. Allowing about 20¢ for taxes and freight, that would yield them around 12¢ over their jobber buying prices, at that time around 43¢ to 44¢.

The latest "once in a lifetime" margin situation for many jobbers followed the much same pattern as the one earlier this year. Most of the major oil companies and many smaller integrated refiners held their DTW prices up while swiftly slashing their jobber rack postings. At one time in June, a large major's DTW price in Memphis was 61.6¢, or 15.6¢ above jobber racks.

One jobber told of taking on a a new open dealer, one who had bought his station from his supplier in June. The jobber sold the dealer gasoline at 1¢ over the jobber's cost, plus freight. The dealer got his product 12¢ gal. cheaper, saving $960 on one load, compared to the last price paid his former major supplier. Such instances were generally the exception rather than the rule however, and dealer complaints about wide spreads were again heard.

With two back-to-back fat margin situations, most jobbers are now in great position to chalk up 1986 as one of their best margin years of all time. One Southeast independent said recently that his average markup for the first six months, rack-to-retail, was 16¢ gal. This is at least triple what it was the first half of last year.

There are some large chain retailers, however, who say they don't like to see margins get too long. One has a general policy of not letting his rack-to-retail price spreads exceed around 7¢ gal. for too long a period. Another said during the first big margin windfall that he was slashing his 18¢ spreads in half. Each says they don't like to encourage some competition to either get in or stay in the gasoline business.

Some jobbers now say they wouldn't be surprised to see more dramatic and sudden swings in prices the remainder of this year and well into 1987. They think a combination of uncertain crude oil prices and speculative trading in the futures market will keep prices from stabilizing. Meanwhile, some think, the major oil companies will keep trying to get as much profit as possible out of their refining and marketing operations, due to shortfalls from the crude oil production side. This will cause them to keep trying to get as much as they can from their dealers, say some jobbers.

Loss of market share could quickly change that little scenario, of course. One chain retailer says he saw signs of "the elephants beginning to move" just before jobber prices began breaking again in June. "If we get them too stirred up, we'll get trampled." *—Marvin Reid*

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

MAY	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$ .927	$ .852	$ .923	$1.075
Regions:				
Northeast	.913	.847	.890	1.038
North Central	.925	.871	.928	1.096
South	.881	.806	.874	1.040
West	.993	.983	.992	1.176

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	6/27/86	6/28/85
Gasoline (total)	227,601	216,902
Gasoline (Unleaded)*	119,798	101,560
Jet Kerosine	39,315	35,998
Distillates	104,547	108,762
Residual	37,968	41,344

**Included in gasoline total.*
Source: American Petroleum Institute.

NPN

NATIONAL PETROLEUM NEWS AUGUST 1986

EPA's '35%' Underground Tank Leak Report Draws Industry Fire

Although it provoked more "hmphs" than "hoorays" from industry spokesmen, Environmental Protection Agency's recent report on underground storage tanks gives marketers more intimate details on their equipment and its characteristics than they've ever had before.

The report's basic finding, that 35% of the buried motor fuel tanks studied over the past two years failed EPA's specially designed tightness tests, prompted challenges and rebuttals from American Petroleum Institute, Petroleum Marketers Assn. of America and others, however.

API criticized the tests for exceeding industry norms and averages. PMAA said the methodology was faulty and, therefore, the results were inconsistent, unreliable and meaningless (see tables).

Over and above the continuing controversy that's going to go on indefinitely, however, there's much to be learned from the industry profiles, projections and statistical tables that EPA developed in the course of its nationwide studies.

Among other things, the EPA report comes to these conclusions—all, it says, with a 95% "confidence level:"

- There are an estimated 796,000 individual motor fuel storage tanks (gasoline, avgas and diesel) in the country, at 326,000 locations which include service stations, fleets and commercial garages, airports and other bigger users, and farms. The study says 158,000 of the tanks are buried on 79,000 farms.

The report also shows:

- That there is an average of two to four tanks per installation, with a median average of three, except for the farms which have an average of two tanks per installation and a median of one.
- That one out of every five tanks is installed partially or completely below the water level. EPA says this does not necessarily mean that drinking water is endangered because much of the water is unpotable in the first place.
- That the average age of buried tanks is 12 years and that there is no significant regional difference in the failure rate it recorded from coast to coast.
- That 89% of the tanks are steel, the balance fiberglass. EPA said there is no significant difference in the failure rate of steel and fiberglass tanks of comparable age, but that problems do increase for steel once they exceed 20 years of service.
- That 23% of the underground tanks are manifolded systems, i.e., linked together for operational purposes.
- That 14% of the establishments have one or more abandoned tanks on the premises. EPA's count involved 53,000 abandoned tanks with seven out of 10 establishments having only one, but some running as high as 10.
- That 15% of the storage tanks are at government and military establishments, 18% at service stations owned by major oil companies, 32% at those of the independents, and 34% at the big garages, fleet operations and airports.
- That self-installed installations (the government and the military are the biggest users of this concept) have a one out of four trouble prone possibility, while second hand tanks have a 50% chance of encountering leakage difficulties.
- That three out of 10 establishments that store motor fuel also have subterranean tanks containing waste oil.
- That seven out of 10 tank owners believe they are covered by insurance for "non-sudden" spills, while 80% believe they are also covered for "sudden" spills and leaks.

All things considered, the miscellany of tables in the EPA report should give the industry considerable insight into the characteristics and facilities of oil marketers. This particular study was limited to motor fuels—gasoline, aviation fuel and diesel fuel. Tanks associated with distillates, resids and other fuels were arbitrarily excluded.

The details, particularly the presumed failure rate, are very important, however, because they will become the basis of the EPA rules and regulations which the government hopes to announce early next year to cover underground storage tanks—their emplacement, replacement, maintenance and protective measures to guard

(Continued on following page.)

PMAA Refutes EPA Storage Tank Findings

Petroleum Marketers Assn. of America, in a memorandum rather than a public statement, sharply criticized Environmental Protection Agency's basic report that 35% of the storage tanks it examined failed to pass tightness tests.

The memorandum, issued by policy vice president Barbara Faulkner, said, in part:

"First one cannot equate the failure of an uncorroborated tightness test to an actual leak under normal operating conditions. The survey's methodology cannot support any estimate of leakage under normal operating conditions, much less a leak rate of 35%. The survey report itself acknowledges that the tightness tests give unreliable and inconsistent results.

"During a tank tightness test typical of that used by EPA, the tank is filled above the surface of the ground so that all parts of the system—including vapor lines that never contain liquid product under normal operating conditions—are exposed to fuel. If there are loose fittings or worn gaskets at or above the top of the tank, the tank may fail the test, although it may never leak product under normal operating conditions."

PMAA cited data from Dade County, Fla., and from several oil companies that suggested a maximum leakage rate of 0.97% to 2%. In addition, PMAA questioned the accuracy of EPA's nose count of the buried tanks, saying it was below industry estimates and even some of EPA's own documents.

American Petroleum Institute added, "At least three major oil companies which have used the same underground tank tightness test as the EPA found vastly different results with complete follow-up tests. Actual rate leaks for these three companies ranged from 0.97% to 2.0% when original tightness test failures ranged from 13% to 26%.

Underground Tanks, Continued . . .

against leaks and spills.

In making its 24-month long study of selected service stations and other locations, EPA said it could not find a commercial testing procedure that could adequately measure leakage rates at the level approved by National Fire Protection Assn. as its standard.

This rate is 0.05 gal./hour—about three-quarters of a cup. EPA's modified system for its tests had a response rate of about 0.1 gal./hour—about 1½ cups. EPA's modifications included procedures to overcome "interferences" such as ambient and soil temperatures, water tables, vapor pockets and barometric fluctuations.

EPA initially collected data from 890 establishments, having 2,445 tanks then concentrated on 218 establishments with 433 tanks for its "conclusive" results.

What irked industry people was that EPA filled all of the tanks to 100% capacity, then added additional pressure during its evaluation testing for tightness. Only at fill-up times, when tanks are generally loaded to capacity, are such high levels achieved. Most of the time, industry marketers said, the storage tanks are well below the capacity and/or peak levels.

Thus, they said, tanks and the interrelated pipelines under such critical conditions, could indicate stress signals at connection points, topside valves and even actual imperfections on the top areas that might otherwise never be involved as trouble spots.

EPA said its 35% failure rate indicated the average leak was 0.31 gal./hour—about five cups full, while half were under that at four cups an hour.

EPA said it made back-to-back tests and retests at times to confirm its findings. Although the agency leaned over backwards to say in its announcement that the 35% failure rate did not automatically mean conversely that 35% of the nation's motor fuel storage tanks are leaking now or intermittently, some general news media excitedly misinterpreted the data, prompting industry spokesmen to issue "not true" responses.

EPA said it could not say how many tanks are leaking currently. It said, "we do not think 35% of the tanks are leaking under actual operating problems." Nevertheless, it added, "we do think this is a significant problem" out there.

API, as part of its comment, said comparable studies by three oil companies produced "vastly different" results, all well below the EPA findings. PMAA said it will continue to challenge the EPA data at every turn and that for its part, "the methodology was wrong and the results, therefore, are tainted, unreliable and meaningless."

How Many Tanks Are There?

Environmental Protection Agency's national survey of underground motor fuel storage tanks indicates there are 638,000 of them buried at 247,000 locations in the contigious 48 states. In addition, there are 158,000 other tanks buried on 79,000 farms. This gives a U.S. total of 796,000 tanks at 326,000 locations, according to EPA.

These are motor fuel tanks only containing gasoline, aviation fuel and diesel fuel. In the tables below, the farm tanks and locations are not included because of the way, EPA says, their totals would affect and possibly bias the regional and industry breakouts.

How Many There Are . . .

Survey Region	Tanks at Gov't. & Military Estabs.	Tanks at Major Oil Co. Stas.	Tanks at Independ. Oil Co. Stas.	Tanks at Other Fuel-Related Estabs.	Tanks at Large Non-related Fuel Estabs.	Totals
Northeast						
Number	25,000	29,000	61,000	27,000	44,000	187,000
% in Reg.	14%	16%	33%	14%	24%	100%
Southeast						
Number	17,000	24,000	40,000	12,000	33,000	126,000
% in Reg.	14%	19%	32%	9%	26%	100%
Midwest						
Number	26,000	25,000	52,000	16,000	20,000	139,000
% in Reg.	19%	14%	29%	15%	23%	100%
Central						
Number	13,000	10,000	23,000	9,000	9,000	63,000
% in Reg.	20%	15%	37%	14%	14%	100%
Mountain						
Number	7,000	4,000	13,000	5,000	7,000	36,000
% in Reg.	20%	11%	36%	13%	20%	100%
Pacific						
Number	10,000	26,000	14,000	8,000	28,000	87,000
% in Reg.	12%	29%	16%	10%	33%	100%
Totals						
Number	98,000	118,000	204,000	77,000	142,000	638,000
% All Reg.	15%	18%	32%	12%	22%	100%

. . . And the Number of Establishments

Northeast						
Number	13,000	7,000	17,000	11,000	21,000	69,000
% in Reg.	19%	10%	24%	16%	31%	100%
Southeast						
Number	7,000	7,000	11,000	6,000	17,000	48,000
% in Reg.	15%	15%	23%	12%	35%	100%
Midwest						
Number	10,000	7,000	16,000	8,000	12,000	53,000
% in Reg.	19%	14%	29%	15%	23%	100%
Central						
Number	6,000	3,000	7,000	4,000	7,000	27,000
% in Reg.	24%	11%	25%	15%	29%	100%
Mountain						
Number	3,000	1,000	4,000	2,000	4,000	14,000
% in Reg.	20%	8%	28%	15%	29%	100%
Pacific						
Number	5,000	8,000	4,000	6,000	12,000	35,000
% in Reg.	15%	23%	11%	16%	35%	100%
Totals						
Number	45,000	33,000	58,000	36,000	74,000	247,000
% All Reg.	18%	13%	24%	15%	30%	100%

TOMA Replaces Fellers With Veteran Assn. Exec.

The Texas Oil Marketers Assn. chose an experienced, award-winning trade association executive from the transportation industry late-June to replace Dave Fellers, TOMA's aggressive, former executive vice president, who resigned earlier in the year over differences in association goals.

TOMA selected James E. Shillingburg, of Austin, who previously served for 14 years as vice president of the Texas Motor Transportation Assn.

James E. Shillingburg

"I'm still on cloud nine," said Shillingburg, who was scheduled to join the TOMA staff on July 15.

Shillingburg, whose background is primarily in transportation and trucks, candidly admits that one of the first duties at TOMA will be to get to know petroleum marketing.

"Jim is highly respected among his peers and members of the Texas legislature," said Lynton Allred, the new TOMA president. "His association management and legislative experience in Austin will serve TOMA well."

Shillingburg, 48, is a graduate of the University of Texas and was certified by the American Society of Association Executives (ASAE) in 1978. This year, the ASAE honored him with the group's "Fellows" Award, presented to 17 outstanding association executives in the U.S.

Commenting on Feller's resignation, Shillingburg said, "The association is for the membership. It's their association. Dave's tremendous. He did a good job. But we all get into situations where personalities are different."

Shillingburg expressed excitement over receiving the position with TOMA. "I've been around the oil patch all my life, and now to have the responsibility of being TOMA's new executive VP—it's exciting."

Oil Companies to Trim 17% Of Capital Outlays in '86

A new capital spending forecast by McGraw-Hill, Inc., confirms the blood letting outlines that have emerged since the collapse of the crude oil market last winter—major cutbacks in exploration and production, but only moderate pruning in downstream marketing.

The latest update, issued in late-May, says the industry as a whole is trimming capital spending 17% in 1986, 11.2% in 1987 and 1.3% in 1988. In dollars and cents, that reduces capital spending to $40.5 billion in 1986 versus $49.3 billion in 1985; $36 billion in 1987 and $35.5 billion in 1988.

Marketing, based on a survey made last October, had been expected to have a $4 billion year in capital spending in 1985 [*NPN*—Feb. '86, p30]. But then the world literally fell apart during the winter months and throughout the first four months of 1986.

The new projection pegs marketing expenditures at $3.2 billion for 1986, down 12.9% from 1985's estimated figure of $3.7 billion. They're expected to increase 2.3% in 1987, then decline again 5.7% to $3 billion in 1988.

(In billions of dollars)

Segment	1985	1986	% Change	1987	% Change	1988	% Change
Marketing	$ 3.667	$ 3.193	(12.9)	$ 3.265	2.3	$ 3.079	(5.7)
Exploration/ production	38.045	23.642	(28.5)	23.481	(0.7)	22.715	(3.3)
Refining	3.376	2.622	(22.3)	2.068	(21.1)	2.070	0.5
Trans.	3.795	6.425	69.3	1.831	(71.5)	1.798	(1.8)
Petrochem.	.940	1.361	38.4	1.783	37.1	1.952	9.5
Other*	4.442	3.344	(24.7)	3.556	6.3	3.906	9.8
Total	**$49.265**	**$40.527**	**(17.7)**	**$35.984**	**(11.2)**	**$35.528**	**(1.3)**

(*) Misc., may include some duplications.
Source: McGraw-Hill, 39th annual spring survey of business plans for new plants and equipment, re-issued May 1986.

Oil Companies Win Two PMPA Cases

Oil refiners are free, under the Petroleum Marketing Practices Act (PMPA), to turn service stations into pumper-only outlets without first having to offer full-service dealers the option to buy the facility, separate courts in California and Minnesota have ruled.

The cases involved full-service operators David Valentine, a Mobil dealer from Scottsdale, Ariz.; and Ronald Radecki, an Amoco dealer in St. Paul, Minn.

Valentine and Radecki performed auto repairs and offered auto accessories for sale at their outlets, but both balked in 1983 when the oil companies initiated plans to convert to pumpers. PMPA suits were filed by the dealers after Mobil and Amoco terminated the franchises.

The PMPA requires oil companies to offer dealers the right of first refusal on the purchase of a service station which is materially altered. Valentine and Radecki argued that the full-service-to-pumper conversion kicked in the PMPA provision.

But the courts disagreed. In a 2-1 decision, the 9th Circuit Court of Appeals in San Francisco upheld a lower court ruling granting Mobil summary judgment over Valentine. Judge Alex Kozinski, writing the majority opinion, said the PMPA provision cited by Valentine addressed only a situation where the oil company is intent on terminating a franchise. Mobil wanted the relationship with Valentine to continue, Kozinski wrote, and was justified in reserving the right to convert to a pumper.

Kozinski noted district court testimony revealed that Mobil included "redevelopment riders"—clauses in franchise contracts giving the oil company permission to redevelop service station premises—in all of its franchise agreements. Further, Kozinski said Valentine failed to show an ulterior motive on Mobil's part.

In the Radecki case, Judge Paul Magnuson of the U.S. District Court for Minnesota found that Amoco was justified in taking action to terminate Radecki since he refused to agree to the pumper conversion. "That the franchisor can act to alter the franchise . . . in response to changed market and economic circumstances, even to the detriment of the franchisee, is consistent with . . . the PMPA and its legislative history," Magnuson wrote.

Refinery Shutdowns in 1985

The U.S. oil refining industry lost a total of 242,000 b/d of crude refining capacity in 1985 as a result of shutdowns, but gained 175,000 b/d capacity from new and reactivated units, according to the Energy Information Administration.

The total net loss for the year was 68,000 b/d in refining capacity, leaving a total capacity of 15.5 million b/d for the nation [*NPN*—July '86, p14].

Here's the EIA's rundown on closings and reactivations from Jan. 1, 1985, to Jan. 1, 1986:

Refiner/Location	Crude Distil. Cap. (b/d)	Downstream Cap. (b/d)	Years in Operation
SHUTDOWNS			
Allied Materials Corp., Stroud, Okla.	7,600	2,500	37+
Amer. Refining Group, Indianola, Pa.	180	0	3
Ashland Oil Co., Freedom, Pa.	6,800	3,600	37+
B-T Energy Corp., Louisville, Ky.	3,000	0	3
Coastal Petroleum Refiners, Bakersfield, Calif.	10,000	0	6
Conoco, Alvin/Texas City, Texas	33,274	0	22
Damson Gas Processing, White Deer, Texas	0	1,000	12
Flint Chemical Co., San Antonio, Texas	1,500	0	23
Gary Refining Co., Fruita. Colo.	15,200	27,100	19
Golden Eagle Refining, Carson, Calif.	16,170	0	37+
International Processors, St. Rose, La.	28,356	14,000	6
Kenco Refining, Wolf Point, Mont.	4,700	0	8
Morrison Petroleum, Woods Cross, Utah	6,000	0	11
Texaco Refining & Marketing, Amarillo, Texas	20,000	24,400	37+
Texaco Refining & Marketing, Lawrenceville, Ill.	79,000	134,000	37+
Tropicana Energy, Fort Worth, Texas	4,650	0	19
Vicksburg Refining, Vicksburg, Miss.	6,000	0	7
TOTAL	242,430	206,000	
NEW/REACTIVATED			**Status**
Arco Alaska, Anchorage, Alaska	12,000	0	New
Barrett Refinery, Thomas, Okla.	9,300	0	React.
Hill Petroleum, Krotz Springs, La.	55,300	77,000	React.
Leal Petroleum, Nixon, Texas	16,397	0	React.
Primary Oil & Energy, Chester, Va.	1,900	0	New
Sabre Refining, Bakersfield, Calif.	10,000	0	React.
Seminole Refinery, St. Marks, Fla.	17,000	11,390	React.
Silver Eagle Oil, La Barge, Wyo.	2,500	1,300	React.
South Hampton Refining, Silsbee, Texas	20,250	5,700	React.
Trifinery, Corpus Christi, Texas	30,000	25,000	React.
TOTAL	174,647	120,390	

Gasoline Tax Hikes Hit Six States

Motorists in six states had to pay more for their motor fuel supplies this summer because of June and July increases in gasoline and diesel fuel taxes.

Here are the states involved: Tennessee —4¢ on gasoline and 2¢ on diesel to 17¢ and 15¢ gal., respectively; Colorado—6¢ on gasoline and 7.5¢ on diesel to 18¢ and 20.5¢ gal., respectively; Connecticut—1¢ on gasoline and diesel to 17¢ gal. for both; Kentucky—5¢ on gasoline and diesel to 15¢ gal. for both; Nebraska—2.3¢ on gasoline and diesel to 19¢ gal. for both; Virginia—A flat 15¢ gal. for gasoline and diesel fuel in lieu of a variable rate.

The state taxes are in addition to the 9¢ federal and the local taxes that are imposed in some places. Highest taxes—local, state and federal—are in Illinois, Indiana and Nebraska, at 28¢ gal. each; and in Colorado and Washington, at 27¢ gal. each.

Price Not As Vital In Heating Choice: MEC

A new marketing study by Metropolitan Energy Council (Greater New York area), says that price is losing its significance as a factor in consumer evaluation and purchase of heating equipment.

Asked the blunt question: "What is the single most important factor in choosing a heating system for the coming winter," only 20% cited price. MEC says that's an 11% drop since last year, and a 50% drop since its first survey in 1981.

Ray Hanney, a Brooklyn dealer who heads up MEC's study committee, says this is the second year in a row and the third in four years that equipment efficiency was chosen as the No. 1 factor by consumers.

"What this tells us is that equipment efficiency, when kept simple, can be equated by consumers to miles per gallon in their cars," he stated.

Safety was chosen by consumers participating in the study as the second most important factor in their decision-making processes.

Meanwhile, at a Better Home Heat Council (Massachusetts) conference, Joseph Vassallo, marketing vice president of Whaleco Corp., New York, confirmed that price alone isn't that important anymore. He said that image—as reflected by quality, service and reliability—is a better marketing tool than price, especially in a head-on contest with dealers in a C.O.D. market.

C4680-1

September 1986 $4.50

New Fuel Oil 'Superjobber' Rises in East
Why a Texan Is Building 'Phase 2' Stores
How Amoco Is Overhauling Its TBA Program

NPN
National Petroleum News

USE YOUR CASH CARD

Ads Blitz Consumers
Can the Majors Get POS Going?

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NATIONAL PETROLEUM NEWS

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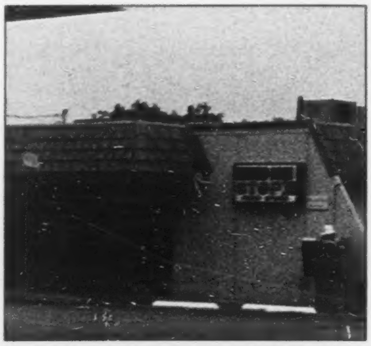
USE YOUR CASH CARD

After years of cautious testing, oil marketers are now rolling out full-scale, multimillion dollar POS programs. The crucial question, as yet unanswered, is whether consumers will take the bait. **Page 42**

Over a short period of time, Champion Energy has climbed from nowhere to the lofty ranks of distillate "superjobber." Take a close-up look at Mahmoud Wahba and his remarkable company. **Page 52**



Thirteen years ago, H. Doak Neal Sr. bucked traditional wisdom and converted his dealer stations to small C-stores under direct operation. Now, Neal is well into a rebuilding program aimed at smaller towns. **Page 54**

• TRENDS

Automation at Stations "Inevitable'—Van Sickle

The automation of service stations—the so-called "ghost stations" dealer groups have eyed suspiciously and fought for several years—is the next important trend likely to overtake motor fuel marketing, says Sam Van Sickle Jr., who retired this month as senior vice president of marketing at Amoco Oil Co.

"There's no reason a station's pumps can't be open 24 hours a day," Van Sickle said. "The technology is here now for 24-hour fueling. Automation is another step toward the highest and best use of a given piece of property."

Van Sickle sees the shift toward automated fueling as "inevitable" and compared it to the rapid rise in self-service fueling from a few scattered sites in the 1950s and '60s to rapid growth in the 1970s, and its current role as the dominant method of retailing motor fuel.

"Self-serve took a long time to be fully accepted by marketers, dealers and politicians," Van Sickle said. "There were plenty of barriers to self-serve to overcome. Once we took the fear out of pumping your own 'gas,' customers accepted it and when we added the price incentive, it really took off."

Van Sickle took retirement, effective Sept. 1, after 37 years with Chicago-based Amoco. Robert J. Rauscher was named to succeed Van Sickle in the top marketing office at Amoco (*NPN*—Aug. '86, p68).

"There was no early retirement inducement," Van Sickle said of his retirement. "My family's all out on their own now and I just plan to enjoy my retirement. But, this is also the worst time to leave the industry because downstream is the most exciting part of the oil business right now."

As head of Amoco's marketing effort since 1977, Van Sickle presided over the company's shift from the controlled environment of the 1970s to the free-for-all that has characterized the 1980s.

"During controls, we went through a shakeout to get into a more manageable position," Van Sickle said. "We closed a lot of stations during that time, but it had to be done. Amoco was as well situated for the changes brought on by decontrol as anybody and in better shape than most. That paid off for us. We were trimmed down and ready to go with what the customer wanted and that was self-service.

"One thing we found out was that you couldn't just turn over a pumper to a dealer and expect him to prosper. (The dealer) needs an ancillary income source and C-stores have proven a successful way to provide it. The same can be said for car washes."

"There will always be a place for full-service," Van Sickle said. "Some areas can support full-service better than others, but we've seen a trend in some cities to attempt to legislate a minimum number of (service) bays."

Like the full service dealer in a self-service market, the small jobber, one selling 2 million gal./year or less, may be on the road to extinction, according to Van Sickle. "The small jobber is in for a difficult time in the coming years because he must have the high volume outlets just like anyone else if he wants to survive. I don't see any way to avoid a further shakeout in the jobber ranks: more buy-outs and more mergers. There's a point where the economies of scale come into play and small jobbers have to reach that point or they're not going to make it."

On the other hand, the pace of oil company mergers has slowed down considerably from the frantic pace of two years ago. "There's not that much discretionary money lying around now to allow for a big acquisition. The drop in prices has seen to that. It'll be quiet for a while. Too many companies are holding too much high-cost crude," he said.

Regarding oil company marketing, Van Sickle said that "image" has moved to the forefront of marketing efforts. "Marketing has always been the 'face' of the company," he said, adding that the face was traditionally unprofitable to maintain. "It was important the image be kept up-to-date and that was expensive. The only difference is that we're making money at it now."

Likewise, jobbers in Amoco's "town and country markets"—those not large enough to support company-direct supply—need to invest in image upgrades at their stations. "The customer doesn't know the difference between a company- or jobber-supplied station so there shouldn't be any big difference in the appearance," Van Sickle said.

—Dan Larson

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

JUNE	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$ .958	$ .885	$ .955	$1.100
Regions:				
Northeast	.957	.888	.936	1.078
North Central	.962	.909	.967	1.123
South	.909	.836	.904	1.060
West	1.013	.919	1.011	1.188

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	8/1/86	8/2/85
Gasoline (total)	222,255	229,401
Gasoline (Unleaded)*	116,015	113,995
Jet Kerosine	43,139	36,327
Distillates	116,428	117,249
Residual	39,693	41,477

**Included in gasoline total.*
Source: American Petroleum Institute.

Majors Foundering Amid Price Skid, But Downstream Rides to the Rescue

Once the principal occupant of the "who cares" category of oil companies more concerned with getting rid of product than in making money on refining and marketing, downstream profits are fast becoming the darlings of the modern oil industry.

Refiners and suppliers generally netted more on their downstream operations in the second quarter and the first half than ever before in history. What it means, literally, is that downstream profits have now "come of age," in response to the turnarounds that got underway several years ago.

It used to be that the suppliers made most of their money on exploration and production, and so long as the downstream volumes kept increasing annually, that was the name of the game. Today, exploration and production have been all but devastated by the (again) biggest cutbacks the oil companies have ever known in these areas.

Percentagewise, the increases in downstream earnings in the second quarter and first half of 1986 seem utterly fantastic. They range as high as 1,458%, reflecting increases of 15 times over what they made last year. In hard money, the boom times were equally significant, however, with many reporting nets in the hundreds of millions of dollars, whereas they used to report virtually nothing.

As a matter of fact, the only "losers" in the second quarter and first half were Chevron and Standard Oil (formerly, Standard of Ohio). Chevron had a technical decrease of 27% in downstream earnings, but it was quick to point out the second quarter of 1985 contained an unusual one-time increase of $147 million, thus upsetting the normal basis for comparison. Excluding the special additions, Chevron said, would have made the earnings something like $121 million versus $19 million, or a second-quarter 1986 growth of more than 500%. Where Standard is concerned, it is going through a massive upheaval with its second billion dollar retrenchment and write-downs in its history. Standard management was taken over by BP Inc., of London, last spring.

It must be remembered, in comparing the data in the earnings table on this page, that there is a certain amount of imbalance in the way the numbers are reported. Some companies include transportation with refining and marketing; others do not. Some companies report net profits in normal fashion while others report them as pre-tax, operating profits which naturally give them a rosier value than they

Losers Dominate First Half Earnings Reports

(In millions of dollars)

Company	2nd Qtr. 1986	2nd Qtr. 1985	% Chng.	1st Half 1986	1st Half 1985	% Chng.
Exxon	$1,115.0	$745.0	49.7%	$2,825.0	$2,070.0	36.5%
Mobil	582.0	411.0	41.6	1,022.0	731.0	39.8
Chevron	216.0	347.0	(37.8)	593.0	701.0	(15.4)
Texaco	185.0	305.0	(39.3)	513.0	625.0	(17.9)
Shell	219.0	337.0	(35.0)	495.0	633.0	(21.8)
Amoco	238.0	600.0	(60.3)	569.0	1,073.0	(47.0)
Tenneco	80.0	152.0	(47.4)	204.0	98.0	108.2
Arco	150.0	(1,099.0)	—	449.0	(1,538.0)	—
Standard	(681.0)	396.0	—	(428.0)	733.0	—
Phillips	8.0	117.0	(93.2)	104.0	230.0	(62.1)
Sun	100.0	146.0	(31.5)	246.0	273.0	(9.9)
Unocal	34.6	120.4	(71.3)	108.4	301.1	(64.0)
Amer.-Hess	19.7	31.8	(38.1)	(319.6)	69.0	—
Dia. Sham.	34.5	(764.0)	—	24.5	(705.3)	—
Ashland (*)	80.2	60.3	33.0	167.7	100.4	67.0
Kerr-McGee	3.2	40.7	(92.0)	25.3	69.1	(63.0)
Pennzoil	25.2	52.6	(52.1)	9.0	110.0	(91.8)
Murphy	2.6	23.8	(89.1)	13.1	44.0	(70.2)
Petrofina	4.4	16.0	(72.5)	(35.3)	18.5	—

(*)Third quarter and nine months; fiscal ends 9/30.

Downstream Earnings Are Up—Way Up

(In millions of dollars)

Company	2nd Qtr. 1986	2nd Qtr. 1985	% Chng.	1st Half 1986	1st Half '1985	% Chng.
Exxon						
domestic	$197.0	$67.0	194%	$357.0	$80.0	346%
foreign	376.0	39.0	864	823.0	55.0	307
Mobil						
domestic	170.0	53.0	221	221.0	42.0	426
foreign	294.0	40.0	635	498.0	37.0	1,246
Chevron						
domestic	121.0	166.0	(27)	169.0	141.0	20
foreign	108.0	36.0	200	229.0	114.0	101
Texaco						
worldwide	322.0	67.0	381	623.0	40.0	1,458
Shell						
domestic	76.0	35.0	117	148.0	49.0	202
Amoco						
worldwide	173.0	99.0	75	192.0	101.0	91
Arco						
domestic	121.0	93.0	30	210.0	142.0	48
Standard						
domestic	149.0	157.0	(5.1)	154.0	203.0	(24)
Phillips (*)						
domestic	155.0	104.0	49.0	253.0	106.0	139
foreign	(5.0)	9.0	—	15.0	16.0	—
Sun						
domestic	111.0	54.0	106	179	74.0	142
Amer. Hess						
domestic						
Ashland (**)						
domestic	131.9	84.4	56	256.1	128.9	99
Kerr-McGee						
domestic	7.3	15.3	(52)	4.9	1.6	208

(*)Operating net, pre-tax; (**)Operating net, pre-tax; also, 3rd quarter and nine months; fiscal ends 9/30.

would normally have.

On the corporate side, most companies did as had been expected in the face of plummeting crude oil prices and the leveling of product prices.

Exxon and Mobil, Nos. 1 and 2 in the hierarchy of oil companies, came in with substantial increases in both the quarter and the half. Exxon had a $1.12 billion second quarter and Mobil, a bit more than half of that. Exxon's corporate earnings were buoyed by more than a half-billion dollars worth of profits in downstream operations at home and abroad. Mobil said one-time earnings boosted its second quarter and first half returns.

Phillips and Unocal, still struggling with the heavy indebtedness they had to absorb in their acquisition fights with T. Boone Pickens and his corporate financiers, also had heavy losses in the second quarter, 93% and 71% respectively, and in the first half, 62% and 64% respectively. *The Wall Street Journal*, in a recent analysis of the two companies, said the plummeting crude oil prices are having an inexorable effect on their financial structures. The article said Unocal may soon be forced to sell some of its assets. Phillips already has disposed of $1.7 billion worth to stay alive.

Tenneco had a fair second quarter which, added to its strong first quarter, gave it a first-half of $204 million, or a 100% increase. Ashland also reported significant profits but its figures are for the third quarter and nine months since its fiscal ends on Sept. 30; hence, they are not truly comparable.

Other big first half losers were Kerr-McGee, which saw corporate earnings drop 63% from year earlier figures to $25 million; Pennzoil, down 91.8% to $9 million; and Murphy Oil, down 70.2% to $13 million.

API Criticizes As Flawed EPA Storage Tank Study

American Petroleum Institute, in a sharply critical analysis of the recent Environmental Protection Agency report on underground storage tanks, says—in substance—that it's hardly worth the paper it is written on.

The EPA study, released in mid-June after two years of effort, said 35% of the underground systems it inspected around the nation failed its tightness tests. It went out of its way, however, to say that this did not mean that 35% of the tanks were or are leaking. It also estimated that there were 796,000 motor-fuel storage tanks buried at 326,000 establishments, of which 322,000 were at 91,000 gasoline stations [*NPN*—Aug. '86, p29].

API politely questioned the validity of the statistics in a brief commentary right afterwards. In mid-July, however, the Institute all but dismantled the EPA report with a meticulous rebuttal that challenged the test procedures, their scope and the principal findings.

There is a difference between failing the tightness test and having actual, operational leaks, API said, explaining:

"The test procedure used in the EPA survey is often used as a preliminary screen to identify potentially leaking tank systems. EPA, however, did not use follow-up procedures to determine if the tank systems actually were leaking.

"At least three major oil company surveys of their gasoline storage tank systems revealed actual leak rates of 0.97%, 2.6% and 2.0%. Further, a survey of underground storage tank systems from the Dade County, Fla., Department of Environmental Resources Management revealed a similar leak rate. And a tank pollution liability insurance firm reveals that its records, over the past four years, indicate a 1% leak rate.

"In sum, the data from our members make it clear that the vast majority of the tanks—95% or more—are not leaking and do not represent a major threat to drinking water or property."

API also said that EPA did not use or evaluate the inventory reconciliation system that is the most widely used by gasoline suppliers and marketers. In addition, it went on, there also are a number of statistical anomalies in the EPA study—findings contrary to industry experience—that the government offered no explanation for.

The trade association said the government agency underestimated the underground tank population sadly. It did not, for example, take into consideration the considerable number of gasoline storage tanks at convenience stores. In addition, API said, if the EPA would have used its own ratio of 3.5 tanks per station and applied them to industry (and government) figures, it would have come up with more than twice the total it reported in its findings.

The study raised more problems and questions than it resolved, API said, adding: "Until these problems (with the study) have been dealt with substantively, this (EPA) survey will not be useful in helping the state governments or the federal government address the problem of underground storage tanks."

Seven "Marketers" Indicted in N.Y. Tax Evasion Scheme

Seven more "marketers" have been indicted in the gasoline tax evasion scam that has hit many states around the country.

The indictments were announced jointly by New York and federal officials who said the scams netted the tax evaders $11 million in state and $5.5 million in federal taxes in a six-month period of 1984.

N.Y. State Attorney General Robert Abrams called the case "the biggest gasoline bootlegging operation ever prosecuted in the United States." All of the individuals face possible prison terms up to seven years and fines of $5,000 each.

Additionally, the chief of the Federal Organized Crime Strike Force for the Eastern District of New York, Edward McDonald, said the various individuals had ties with five organized crime families in the metropolitan area.

Abrams said the principal defendant, Sheldon Levine, 41, of Dix Hills (Long Island) N.Y., set up a "shell" corporation identified as Green Star Petroleum, which held a distributor's license in nearby Connecticut.

According to the indictment, Green Star imported 70 million gallons of gasoline in the second half of 1984, mostly by barge from New Jersey. It then sold the gasoline to distributors and wholesalers controlled by the principal defendants.

The corporations involved in the alleged conspiracy were identified by the state attorney general's office as Green Star Petroleum, No Brand Petroleum, Snug Harbor Fuel Corp., Seaplane Shuttle Transports, Lewis Petrochemical and Trading Corp., Semar Petroleum Corp., Travellers Petroleum Corp., and Montana Enterprises Corp.

The attorney general's office also supplied a listing of locations that were searched in February 1986. They included Lewis Petrochemical and Trading Corp., Brooklyn, N.Y., the alleged headquarters of the ring.

Those indicted pleaded not guilty. Bail of $500,000 was set for Levine with lesser amounts for the others.

Gasoline Octane Levels Unchanged In Belated Energy Research Study

A belated report from the National Institute for Petroleum and Energy Research indicates that up through last summer, at least, no substantial changes have taken place in the octane qualities of gasolines, even though the feeling persists that suppliers are on the verge of doing something about them.

The report, a contract project in behalf of American Petroleum Institute and the U.S. Department of Energy, was published in July, roughly three to four months behind schedule. Some of the delay problems resulted from budget cutting by API and the government earlier in the year, holding up the initiation of the semi-annual study.

There has been some speculation recently that the major suppliers are about ready for an octane race of sorts. Many suppliers, since the first of the year, have reformulated their gasolines and increased the detergency levels in response to the cloggings of port valves in newer engines. (See story on Page 32.)

A number of companies also are field-testing three unleaded grades, dropping leaded regular for a mid-grade unleaded generally pegged at the 89-octane level which is where the leaded regular generally lies now. But with leaded regular demand down to 30%, its future is vanishing rapidly and in its place will probably be three unleaded grades with a secondary probability that premium octanes will move upwards a point to two points in the not-too-distant future.

The current report covers gasolines through the summer of 1985. Another of the semi-annual series is underway now covering gasolines through the winter period of 1985-1986. This should be available in the fall.

A special feature of the current study is a report on gasolines with alcohol blends. This is the first time for this category and presumably it will continue indefinitely. The current study must be considered limited, however, because the number of samples collected and analyzed were only about one-third of the number involved in the regular procedures.

The July report shows that the octane number averages of unleaded gasolines above 90 (nominally the premium grade) were 91.7 in the summer of 1985, one-tenth of a point above the preceding winter but even-stephen with the summer of 1984.

For unleaded gasolines below 90 octane (generally considered regular grade), the averages were 87.4 in the summer of 1985, the same as the previous winter, but one-tenth higher than 1984.

Leaded regular below 93 octane slipped to 88.8 from 89.1 in the winter months and 89.0 in the summer of 1984.

If octane is to be considered a quality characteristic, it would mean that the alcohol blends of leaded and unleaded regular gasolines are superior to those of the unblended grades.

The tables highlight the 1985 report, showing regional and national differences by grade and analysis methods. The research numbers reflect laboratory tests while the motor methods are generally highway tests. The equation of R plus M divided by two is the federally mandated procedure for averaging them out to an industry number.

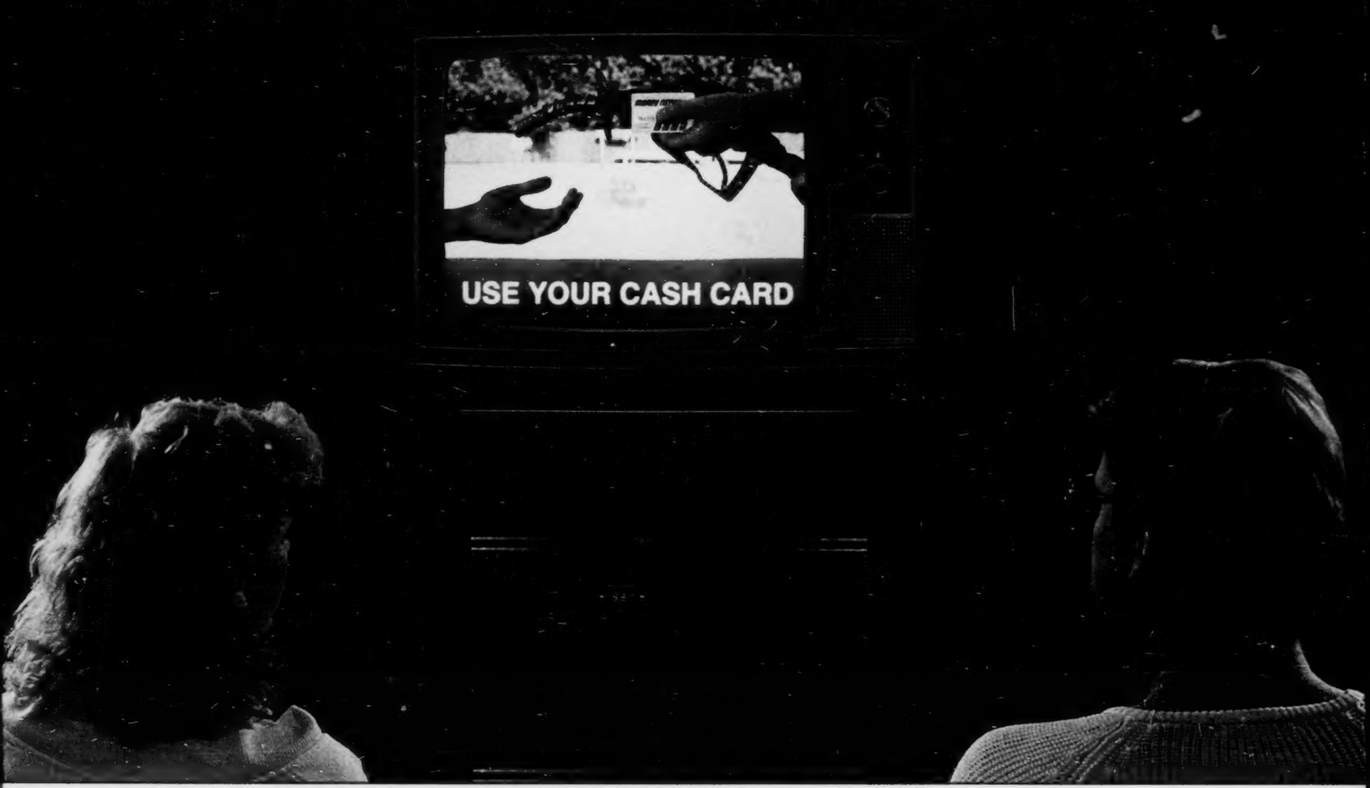
Gasoline Octanes, Regional Averages Through Summer 1985

	*(R + M ÷ 2)**		
	Unleaded Gasoline		**Leaded Gasoline**
Regions	**Below 90 Octane**	**Above 90 Octane**	**Below 93 Octane**
Northeast	87.6	91.9	89.7
Mid-Atlantic Coast	87.4	92.0	89.4
Southeast	87.5	92.0	89.4
Appalachian	87.3	91.7	89.1
Michigan	87.1	91.5	89.3
North Illinois	87.1	91.3	89.3
Central Mississippi	87.4	91.5	88.9
Lower Mississippi	87.3	92.0	89.2
North Plains	87.5	91.8	88.2
Central Plains	87.7	91.0	88.1
South Plains	87.5	91.7	88.7
South Texas	87.3	92.0	89.1
South Mountain States	86.8	91.4	87.7
North Mountain States	86.4	91.7	87.3
Pacific Northwest	87.4	91.8	88.8
North California	88.2	91.6	88.9
South California	87.8	92.0	88.9
Summer 1985	87.4	91.7	88.8
Summer 1984	87.3	91.7	89.0
GASOLINES CONTAINING ALCOHOL BLENDS			
Northeast	88.5	93.3	N.S.
Mid-Atlantic Coast	87.8	91.5	90.2
Southeast	89.8	91.5	90.3
Appalachian	87.5	91.4	89.2
Michigan	89.0	N.S.	92.4
North Illinois	89.1	91.5	90.8
Central Mississippi	88.2	92.4	90.5
Lower Mississippi	88.6	91.7	90.4
North Plains	89.6	90.0	88.7
Central Plains	89.5	90.6	90.6
South Plains	88.6	90.0	90.2
South Texas	88.0	90.8	89.6
South Mountain States	88.6	93.4	89.9
North Mountain States	87.2	90.4	89.5
West Coast	N.S.	N.S.	N.S.
Summer 1985	88.6	91.4	90.2

*Research plus motor method divided by two, which is the government-mandated octane number for posting on pumps.

Source: Motor Gasolines, Summer 1985, National Institute for Petroleum and Energy Research, Bartlesville, Okla., June 1986, Published July 1986.

Pushing Debit: Will New POS Plans Make Consumers Bite?



It's late, but the debit game has just gotten hot. After years of caution and testing, oil marketers are now laying their bank cards on the table and unveiling to the public their large-scale, multi-million dollar point-of-sale (POS) programs.

The fact that millions of consumers are now being allowed into the game is surprising, since just a few months ago the rush toward a so-called "cashless society" appeared stifled by a gamut of unanswered questions.

But today, numbers show the major oil companies pushing their debit programs well past test phases and into hundreds of stations across the country.

With so many terminals in place, the next crucial question will be whether or not Americans will begin using their automatic teller machine (ATM) or "debit" cards instead of cash.

"The big question mark is consumer acceptance," said one observer.

At this point, consumer acceptance or rejection of debit could go either way. And for every observer that believes consumers will embrace debit, there's one that says otherwise.

"If consumers were knocking our doors down (for debit), we'd offer it," said a Chevron official. "But we haven't seen it."

How consumers react to debit is of major importance to gasoline marketers, who have already invested at least $7.5 million on equipment alone.

Oil companies and convenience stores selling gasoline have placed nearly 6,400 bank debit card-accepting POS terminals into retail outlets in 23 states, most of them within the last year, according to industry estimates.

While debit players stop short of proclaiming the POS movement free of the various setbacks that slowed its early momentum, they admit activity has increased.

Recent months have seen strong strides into debit by Exxon, Arco, Mobil, Circle K, Southland and most recently Diamond Shamrock, with Shell, Chevron, Texaco and Phillips capable of "moving quickly" into debit through their established network of credit authorization terminals. One major oil company says it would take as little as four months to upgrade its credit POS system to accept debit.

Other factors have recently fired up the cooling debit move, including POS agreements between MasterCard and Visa, the arrival of AT&T and other communication companies into the debit game and the release in July of new POS/debit guidelines by the American Bankers Assn.

From Gray Skies to Sunshine

The mood of the POS industry appears to have gone from gray skies to sunshine in a matter of months.

Only six months ago, movement in the debit field appeared sluggish, bogged down by high terminal costs, bank fee squabbles and weak consumer demand [*NPN*—March '86, p54].

But today, terminal manufacturers are seeing sales volumes rise, banks are striking deals and retailers are spending thousands more in advertising dollars to arouse consumer interest.

Individually, oil companies have jumped into debit in a major way: Diamond Shamrock with 500 stations, Exxon with 1,100, Mobil with 2,400 and Arco, strictly debit and no credit cards, with 500.

"Debit appears to have been reincar-

By Angel Abcede
Staff Reporter

nated," says Patricia Murphy, managing editor of *EFTA Report*.

Terminal population figures from all industries back up the renewed POS enthusiasm. The number of debit-accepting terminals on-line tripled in a year's time, reaching 17,000 in mid-June, according to a survey by industry newsletter *POS News*. Most are in gasoline stations, the rest in C-stores, supermarkets and "specialty" stores, such as shoe stores, bookshops, record stores and flower shops.

The recent surge in POS activity has also affected terminal costs. A mixture of competition, better-built equipment and higher volume have brought island terminal costs below $5,000 for the first time.

"I've seen a 20% reduction in prices in the past eight to nine months," says Edgar Petersen, vice president of sales and marketing for Diebold Inc.

Now Up to Consumers

With so many POS terminals now online and flashy advertising campaigns breaking, the idea of paying for gasoline or soda with the same plastic card used in ATMs has been thrust into the consumer arena. And experts say it will take a year or two to tell whether consumers will applaud or pan the payment alternative.

The theory behind why consumers would use debit is simple: convenience. Consumers using debit cards will get the cash price, and in cases like Arco, the ability to withdraw up to $40 in cash from their bank accounts. So using debit card at a gasoline station eliminates the need to carry cash, and if consumers want both a fill-up and cash from their bank accounts, it saves them from making a trip to the ATM.

This theory applies more to the cash customer rather than people who use credit. With debit, the customer's money is instantly taken from their bank accounts electronically, leaving no float time like with credit. But observers estimate 70% of consumers use cash rather than credit to pay for gas.

But while the reasons cash customers would use debit sound solid, lack of consumer demand was always seen as a big hurdle to clear.

"We still don't see a big demand for (debit)," says N.L. McHone, manager of Travel Card administration for Chevron. "And until we do, I don't see any reason for offering it. What Arco has done makes no difference."

Experts say consumers have no interest because no one has marketed the service to them. Studies by both the financial networks and oil industries show that people would use their debit cards as cash if they knew of the service.

Though debate over who should cover advertising costs have slowed the marketing of debit, strides are being made.

Interestingly, the biggest step in advertising has reportedly been made not by the oil industry, which accounts for over a third of all POS terminals, but a supermarket, which as a group account for only a little more than a tenth.

The Lucky supermarket chain in California has reportedly spent $9 million in its media blitz, enticing customers to use ATM cards to purchase groceries.

Lucky's ad campaign covered television, billboards, newspaper and radio, emphasizing the quickness and convenience of paying with debit.

Arco Rolls Out Debit Ads

Arco, while limited to the West Coast, now appears to be the biggest television and radio promoter of debit in the oil industry.

Oil companies in general have been less likely to advertise debit through traditional mass media campaigns. Exxon and Mobil normally piggyback debit promotional brochures in bank mailings to cardholders. "We did some advertising in a few markets," said a Mobil official, "but we found the (mailings) more successful."

In Arco's case, a more extensive ad campaign is planned. A 30-second television commercial and two one-minute radio spots were to break last month. The television ad will show an "obsolete" service station with a similarly obsolete cash register. As the commercial goes on, the new "PayPoint" cash register appears, backed by the slogan: "A new way to buy gasoline."

"By raising the question of how it works, we're getting people to try it," said Joe Tebo, manager of sales development for Arco.

The campaign's first radio spot will mirror the television ad, but the second will get further into the new service. It will tell how, by using their debit card, customers can withdraw up to $40 cash from their bank accounts at the PayPoint register, without having to go to an ATM.

Though more retailers are purchasing television and radio time to promote debit use, some POS experts say consumer education, not just awareness, must be raised.

"Some people still think that once they write a check, their account is debited," said one source. "They don't realize the float time involved with a check, and that a debit transaction will automatically remove that payment from their account."

Consumer education is why some observers consider mailing stuffers more effective. With mailings, the cardholders are reached and are given more detailed explanations.

"A continued commitment to promote

Mobil's agreement to accept debit cards in the New York City area opens this payment alternative to about 1 million Citibank customers.

'We are confident that the project will succeed.'

and educate the consumer is needed," said Pat McGraw of Autotank Inc. "It needs to be ongoing until debit becomes something the average consumer is aware of and can make an educated decision about."

Educating consumers through newspaper ads is an alternative Circle K has used in addition to billboards in promoting its "Quickcash" debit card program in Arizona and Texas.

The Circle K newspaper ad, featuring a businessman holding a sack of groceries and his bank cards, says, "Need a little gas, groceries or a sandwich on the run? It's yours with a flash of a Gold First Interstate Bancard or a Valley National Banking card. How about a little walking money? Just ask."

Arco's new TV commercial emphasizes "a new way to pay" with debit.

The ad concludes, ". . . in a world where time is money, 'Quickcash' can save you a little of both."

The future could see ad campaigns implementing all types of strategies and endorsements. A POS project in Dayton, Ohio, already has the backing of a famous television personality: cartoon character Mr. Magoo. The bald, nearsighted Magoo is on billboards and advertisements, with a thought bubble saying how the debit card brings him "an easier, faster, whole new way to pay."

Market research for the Dayton ad campaign concluded that people would appreciate the convenience. But research is only paper, and observers say a true measure of consumer reaction to debit can only happen in the proper atmosphere—the retail outlet.

Wide Range Needed

Not only must consumers be aware of the service, most experts agree that if consumers are going to use debit cards in large volumes, the card must be accepted at a wide range of retail establishments. These establishments include department stores, supermarkets, C-stores, fast food chains and gasoline stations, anywhere customers use cash.

To create this debit environment, business communities in 23 states have pooled resources to begin pilot programs. Many times a regional bank network will organize the effort, in which the merchants and banks initially put aside discussions of fees, just to get the project off the ground.

The goal of the effort is to measure consumer acceptance. To date, there have been 32 such pilots, many of which have expanded to become part of routine daily business.

Successful pilots have made Arizona, Texas and Florida "hotspots" for debit use.

A typical example of such a pilot program is the project in Dayton, Ohio, which began its rollout in July. The effort is organized by the regional debit card network called "Money Station" and includes 20 Bonded and Speedway (Marathon's secondary brands) gasoline stations, seven Gray Drug Stores, and eventually five Wendy's hamburger stores and two supermarkets.

The banks, merchants and even terminal manufacturers, NCR Corp. and Diebold Inc., are contributing to the six-month project that has a total budget of $900,000.

Merchants are charged $600/month per terminal location to participate in the project. The fee covers communication, advertising, installation and maintenance expenses. Merchants are also reimbursed 50% for whatever they spend in promotion.

The project will be extended if all parties agree. "If it doesn't work, we can walk away and feel that we did our best," the spokesman said. "But we are confident that it will be successful."

Although Still Voluntary, EFT Use Growing

If jobbers aren't already affected by the "fast money revolution," they may soon be. A survey of 10 major and semi-major oil companies revealed that seven companies used electronic funds transfer (EFT) with their jobbers.

Most programs run on a voluntary basis, but at least one company, Conoco, plans to make its EFT program mandatory by early next year.

In Conoco's case, payment for product is electronically pulled from a jobber's bank about 10 days after delivery. Of the companies *NPN* surveyed, Arco, Chevron, Exxon, Mobil, Shell and Texaco have similar EFT arrangements with their jobbers. Amoco, Phillips and Sunoco said they did not.

Suppliers have been moving quickly in the last few years toward EFT with their jobbers. In 1982, only 2% of jobbers purchased product through EFT; in 1985, that figure had grown to 9.2%, according to the Petroleum Marketing Education Foundation.

Mobil cited two reasons for switching its jobber payment system to EFT in January 1985. "First of all, the future of banking was heading toward EFT. Second, the paper transaction was more costly," says Chris Mouzakitis, manager of U.S. marketing credit center for Mobil.

"We went from about 30¢ with a paper-based transaction to 8¢ on electronic," he said.

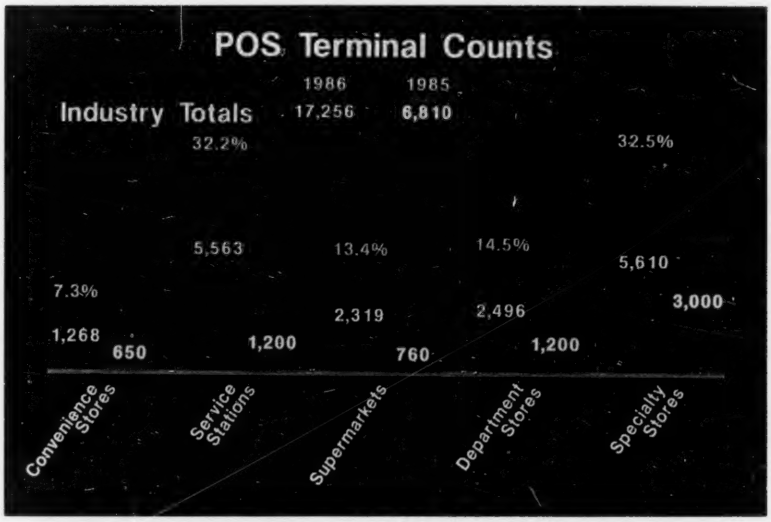
For jobbers, the trend is cutting float time. In the past, jobbers often had 45 days to pay for product. In Mobil's case, jobbers now have to pay in 15 days.

The reason EFT is gaining popularity is partly cost, partly advances in technology and what is called the Automatic Clearing House (ACH).

Banks process funds electronically through ACH. With this network, banks can send and receive transactions between customer and merchant accounts. Between 80% and 90% of all U.S. banks are part of the network.

The development of ACH began in the early 1970s with regional associations cropping up and eventually expanding nationwide.

With the network in place, the trend toward replacing paper-based transactions began. Today, ACH transactions are actually cheaper than most regional financial networks.



In the last year, the number of POS terminals on-line tripled, with petroleum marketers leading the way. Mobil, Exxon, Arco and Diamond Shamrock have the most terminals. Source: *POS News*

A Major Commitment

A lot rides on consumers accepting the debit payment alternative. Oil companies that have expanded their tests have done so in a major way. The following is an overview of recent oil company debit card moves.

- Diamond Shamrock, the most recent company to announce a major POS program, said 500 Shamrock stations are now accepting the proprietary card, Visa and MasterCard credit cards and the Pulse and MPACT debit cards. The program is being offered to the company's 1,500 jobber locations as well.
- Mobil, already with the most stations accepting debit, further expanded its credit and debit card program this summer with a move into the New York metropolitan area, bringing to 2,400 the number of stations on-line in its move toward a 3,500 station goal.

Under a recent agreement, Citibank's New York area customers will be able to use their bank debit cards to purchase gasoline at any station in Mobil's 13-state market.

- Exxon now has debit card acceptors in 1,100 dealer and company-operated stations. These outlets are in Arizona, Florida, North and South Carolina, Louisiana, Texas and most recently New York and Maryland.

Currently, Exxon is working on a POS program for its jobbers.

- Arco announced earlier this year its acceptance of debit cards alone, no credit cards, under the "PayPoint" name in 500 stations in California and Nevada, with a goal of 600 by fall [*NPN*—May '86, p36]. In the future, Arco intends to expand its debit system into Arizona, Washington and Oregon, covering its entire market.

The program goes against the grain of most other POS programs. First, Arco installed expensive island-mounted terminals plus inside terminals, instead of cheaper card-swipe devices only in the store. Secondly, Arco, in keeping with its ground-breaking 1982 decision to "blow up" its credit card, accepts no credit cards, only debit.

In contrast, Mobil's program, for example, uses mostly in-store card-swipe terminals. And Johnathan Briggs, the manager of Mobil's POS program, said Mobil's debit program could not stand without the credit side. The time and paperwork saved on processing credit cards justifies the program, not debit by itself.

Surprisingly, Briggs sees promise in Arco's program. Since Arco only accepted cash in the first place, the convenience of not having to go into the store to pay may entice the cash-paying customers to use their debit cards, Briggs said.

Arco says it could not have made such a major debit expansion if their automated cash registers weren't already in place.

- Sunoco has 725 credit and debit-accepting terminals, with plans to go "as high as 2,500" terminals by 1988.
- Tenneco accepts debit in about 200 stations with plans to expand.
- Others, including Phillips, Shell and Amoco, are testing debit to varying degrees in different states.

Amoco completed a six-station test in Pittsburgh, Pa., with the results now being assessed. Further tests are being considered. Amoco is also conducting a three-station test in Tampa, Fla., of credit card and cash acceptors. Data capture is being tested in about 70 stations in Iowa and Florida.

Shell has a debit test at about 35 stations in Florida and has 4,400 stations linked to its POS program. Shell has been hush-hush on program and expansion details leading some observers to believe there are big plans in the works.

Phillips has about 100 stations with credit card acceptors that take the Phillips card, MasterCard, Visa and Sears' new Discover Card. Plans are for about 225 stations in all market areas. Jobbers can also participate in the Phillips program, if they are willing to pay for the equipment (ranging from $1,100 to $20,000) and a 6.48¢ transaction fee.

Chevron and Texaco both have expansive credit authorization and draft capture programs. Chevron will have 120 on the system by fall and Texaco has 700 stations on-line now.

A Ripple Effect

What the majors do will likely have a ripple effect on jobbers, as oil companies customize their own POS packages. But at the moment, jobber movement toward debit is slow. Recent figures show that only 14% of jobbers accept credit cards through POS, and only 4% accept debit cards, according to a study by the Petroleum Marketing Education Foundation.

As far as POS systems go, many more jobbers have the card and keylock type. Jobbers with POS systems made up 44% of those surveyed in 1984, say statistics in the *Petroleum Marketing Databook*. Of the 56% that didn't have a POS system, 21% planned to get some form of automated system by this year.

"Debit will grow like self-service did," says Michael Scanlon, of PMEF. "By the turn of the century, 70% of gas sales will be debit."

Scanlon believes that since banks are backing the debit move, it will eventually become a nationwide means of payment.

For jobbers interested in getting into

'Debit will spread region by region'—Circle K's Best

POS, Tom Patton, an Atlanta jobber and president of Cardlock Inc., suggests using an established POS fleet service to coordinate software and terminal hookups.

Patton, who operates 40 stations, says he invested $500,000 and tremendous personal effort in putting together a system of his own, a headache jobbers can avoid with a fleet service.

POS for jobbers is a "marginal call," Patton says. "A jobber is probably handling paper now, and if he handles a large amount of bank cards, (POS) will probably be cost effective—but not cheap."

The Debit Universe

For most jobbers, the concept of debit has been a blur of computer talk, wave-of-the-future prophecies, technical mumbo-jumbo and scattered newsbits of this oil company here doing something there.

But once the confusion has settled, and if debit does become a national form of payment, America will most likely see not a "cashless" society, but what one observer called a "less cash" society.

Dale Reistad of the Electronic Funds Transfer Assn., who has studied banking for 25 years, says people will probably look at debit as an alternative form of payment, not a replacement for cash.

"New forms of payment tend to enhance, not replace, old forms," Reistad said.

The question of whether or not debit will become a nationwide habit has been going on for, some say, as far back as the early 1970s. Since then, the promise of debit has ebbed and flowed enough to make anyone skeptical.

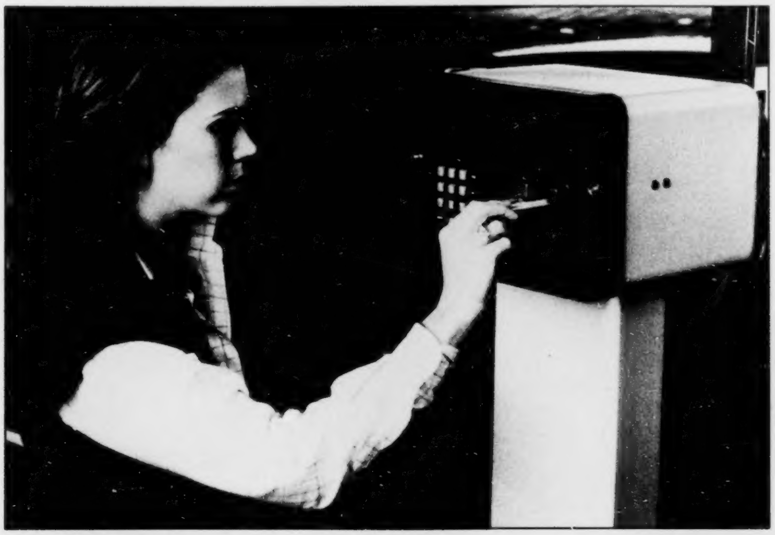
But over the past decade, the foundations by which debit can stand have been built, with an important cornerstone being ATMs. With ATMs in place and in common use, the transition into debit payment has been made easier.

Getting merchants to install terminals was the next hurdle, one that proved almost fatal for debit as banks and merchants squabbled about fees. While many of these differences continue, recent movement in the debit field has helped clear up the chaos.

In July, the Washington, D.C.-based American Banking Assn. released, for comment, a document of POS and debit guidelines. A symposium on the rules is scheduled for October in Chicago, to get input from "non-bank" industries.

While the rules don't address market fees, they provide standards for what a terminal should look like, the use of personal identification numbers, what the plastic debit card should be made of and other technical aspects of POS transactions.

"The document will allow banks and merchants to begin to feel comfortable in developing systems that will work in the marketplace," said Bill Petrarca, vice chairman of the ABA committee that hammered out the guidelines.



Consumers in 23 states are now using debit cards, also known as ATM cards, to pay for gasoline as majors and independents alike outfit stations for POS.

Commitments by corporations previously outside the debit arena also have stirred the POS pot. AT&T and other communication networks announced new POS transaction services. The move appears to be a symptom of increased activity in POS generally.

Other corporations include MasterCard and Visa, which announced a common debit symbol to be introduced early next year. A name has still not been decided upon, but "Entree," a MasterCard-owned trademark, is a frontrunner.

If enough banks sign up, the agreement between the two credit giants could give consumers a nationwide debit mark. The result being the ability to go to any state and pay for goods with a personal bank card.

One major oil company official says moves like the MasterCard-Visa pact make debit more and more appealing.

Along the lines of a nationwide debit mark, Sears' new Discover Card, though advertised as a credit card, also gives card holders the option of opening a savings account. Discover Card promoters say there are "no plans" to convert it into a combined credit-debit card. But the possibility exists.

As a rule, however, anything concerning debit has the ability to change quickly, especially with so many financial networks in place and processing millions of transactions at the blink of an eye.

"We have a fast-moving trend in debit," said Scanlon of PMEF, and for some jobbers this may be so. POS is already big in certain states, like Arizona, Texas and Florida. But for states like Kansas and Missouri, debit is still a foreign idea.

"Debit will spread region by region," says Anita Best, manager of Circle K's POS program.

But how debit spreads among banks and merchants is of little consequence, because consumers will have the final say.

The question of debit today remains one of consumer acceptance, ABA's Petrarca said. "If 95% of the people want (debit), it'll be of value, but if only 2% want it, you couldn't give it away. I believe that somewhere between the two extremes is reality."

But projections and theories mean little to jobbers still wondering what the "bottom line" is with all the hoopla and fast talk about fast money. Simply said, if debit does take off, as McGraw of Autotank put it, "debit will be a tool for swinging market share." **NPN**

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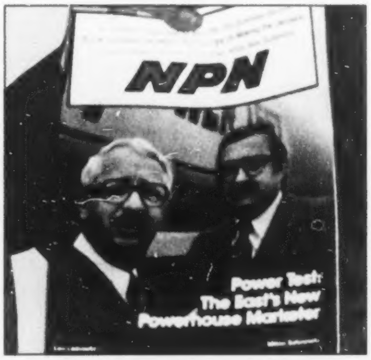
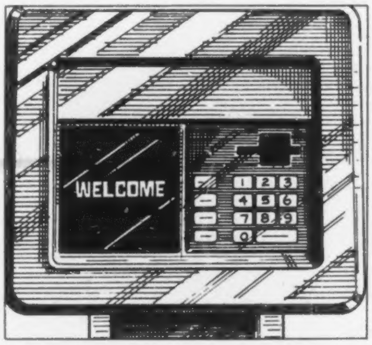


What have Powertest's Leo Liebowitz and Mike Safenowitz been up to since we last saw them on the cover of *NPN* in February 1979? Here's a close-up look. *Photo by J. Richard Shaner.* **Page 44**

In the first of our two reports on automated fueling, we look at the question of why hopes for a national card-activated fleet fueling network may never come to pass. **Page 52**



What do the proposed changes in the fire codes portend for the prospects of unattended "ghost stations"? Will service station dealers go along with the idea? Our second report presents an in-depth look at the issues and options. **Page 60**

• TRENDS

Will Prices Stay Down Despite OPEC's Accord?

If the Organization of Petroleum Exporting Countries sticks to its announced crude oil production quotas, scheduled to be in effect in September and October, crude prices could firm, but then again they might not. Some dark clouds hang over the OPEC resolve:

- The quotas could be inadequate to control worldwide surpluses of crude and products built up last summer in a frenzy of crude oil price-cutting.
- Even if OPEC members didn't cheat on quotas, if they continued to offer netback prices, product markets all over the world could remain depressed.

Above all, netback pricing is the ball to watch.

The market-share war Saudi Arabia launched in 1985, and which others followed, was particularly destructive of world crude prices because it was based on netback deals, which peg the crude price to product prices in the marketplace (*NPN*—June '86, p34). With oil producers assuming the risk of falling prices, refiners were encouraged to overimport and overproduce.

What happened in the United States last summer happened all over the world. Refiners gorged on cheap netback crude, and they stuffed considerably more through their refineries than the markets could absorb. The more products they refined, the lower product prices fell, and, therefore, the lower their crude oil netback buying prices became.

U.S. crude imports zoomed last summer, in the range of 50% higher than they were a year earlier. Refiners stoked up their plants to an average of about 86% of capacity, compared with about 79% a year earlier.

A glut was building, but refiners got a temporary reprieve in August when OPEC announced it would introduce production quotas in September and October. This news alone drove crude and product prices up, and more importantly for refiners, signaled wholesale marketers with nearly empty storage tanks to stock up. This secondary storage system can put a huge drain on the primary storage system under these conditions.

There were runs on terminals, temporary outages and product allocations. The overhanging glut that remained was demonstrated, however, by the spread of retroactive prices, by which some refiners met competition retroactively. This is very aggressive price-cutting, in a league with netback prices on crude.

Oversupply hung over the markets even as OPEC tried to put its price-fixing act back together. The excessive imports and refinery runs had been caused mainly by netback pricing, which OPEC members did not abandon when they adopted production controls. They eliminated some discounts, yes, but kept netback deals in place, perhaps a warning to others that the market-share battle could be started again with the pull of a trigger.

The real test is still to come this winter, the peak demand season for petroleum. This is when producers historically have maneuvered to improve sales and market share.

Saudi Arabia was so successful last year gobbling up most of the available demand, other producers are not easily going to forget the lesson. If they let discounting and quota-cheating slip by without reprisal, they might have to wait another year for similar opportunities to come again. This is a hair trigger that several big producers, particularly Saudi Arabia and Kuwait, have warned they'll pull.

Meanwhile, petroleum demand in the Unites States has looked stronger than it has for years, substantially in response to lower prices. OPEC was counting on demand gains in the U.S. to help make its quotas work.

The American Petroleum Institute estimated the real growth rate was 4-5% this summer.

But distillate fuel oil sales respond mostly to winter temperatures, not to prices. If the balance of supply and demand is at all close, an unseasonal winter could be the controlling factor, not OPEC.

Winter temperatures could turn out to be the crucial indicator in the short term, but in the long term it's the existence of netback pricing that will call the tunes. Until that goes, if it does, product markets are likely to remain soft, however firm crude prices might become.

—Mark Emond

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

JULY	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$ .895	$ .822	$ .890	$1.045
Regions:				
Northeast	.905	.831	.844	1.034
North Central	.870	.817	.875	1.034
South	.870	.795	.865	1.024
West	.943	.855	.940	1.110

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	9/5/86	9/6/85
Gasoline (total)	222,351	225,683
Gasoline (Unleaded)*	116,892	110,845
Jet Kerosine	42,494	35,916
Distillates	135,606	117,699
Residual	40,099	39,336

**Included in gasoline total.*
Source: American Petroleum Institute.

Leaded 'Gas' Demand Dropping Faster Than Most Anticipated—EIA Forecast

The federal government's second-half forecast indicates some improvements in product demand and retail prices can be anticipated in the balance of 1986 and all of 1987—but not enough, really, to be considered to have wave-making potentials.

The new projection confirmed the roller-coaster aspects of the May forecasts which shakily tried to evaluate the growing disarray in product and crude oil marketplaces [*NPN*—July '86, p25].

Gasoline demand had its best summer season since 1978, but for the year as a whole, consumption is not expected to be much more than 2% over 1985. Distillates fared a bit better—up 3% for 1986 and looking at the possibility of another 3.4% rise in 1987. Resid, which has been declining in recent years, also is putting on a strong face—almost 12% for the year. But 1987 appears to be on the downside again, perhaps reusing the slope of recent years.

Of substantial significance is the continuing erosion in consumer demand for leaded gasolines vis à vis the unleaded products. In 1985, unleaded grades were pegged at 65% of product demand. In 1986, unleaded grades are expected to rise to 71% and by the end of next year, to 77%.

It would appear that demand for leaded gasolines is declining a bit faster than most industry sources had anticipated. This means that the older cars—the pre-1975s which required leaded gasoline—are skidding rapidly into oblivion, replaced by the newer models—domestic and foreign—which have higher miles per gal. ratings and smaller appetites for gasoline.

The closing of the gap between the unleaded and leaded grades, as well as the current pressure on prices—which have generally reduced the spread between the two products to as little as 1¢ to 2¢ gal. at the pumps, have all but eliminated the economic reasons for fuel switching, as practiced by some motorists.

Continuation of the swift transition from the leaded to the unleaded world also could mean that demand for the old-fashioned gasoline could be well below the 10% mark by 1990. At that level of interest, leaded regular may become as tough to get at most service stations over the next several years as premium leaded in recent years. Union Oil of California gave up the ghost on leaded premium just this past summer, and it was regarded as the last of the bigger refiner-suppliers to be offering this to West Coast motorists and elsewhere.

The mid-summer forecast, issued by the Energy Information Administration in mid-August, noted that retail gasoline prices are expected to dip 21% below the 1985 level. This is the average for all grades. Some grade prices dropped into the 60¢ gal. range earlier this year, but began to move upwards in August on the basis of market speculation over OPEC's announced intent to cut production to stabilize crude costs.

The short-term energy forecast suggested that gasoline prices may get as high as $1.03 gal. in the second half of 1987, but will average only 99¢ gal. for the entire year. Again, this is the average for all grades and includes federal and state taxes.

The price projections for distillate fuel oil are mildly optimistic. The spread between wholesale and retail averaged 36¢ gal. in the first quarter of 1986 and 31¢ gal. in the second quarter. The forecasts for the third and fourth quarters of this year are 24¢ gal. The chart shows that the spreads averaged 28¢ gal. in 1985, and are expected to average 29¢ gal. in 1986 and 28¢ gal. in 1987.

The retail prices for the home heating oil do not include taxes, however, as do those of gasoline and diesel fuel in the price chart.

EIA said its projections were based on the assumption that world prices for crude oil would average about $13 bbl. in the third quarter and $18 bbl. in the fourth quarter. The $13 bbl. projection seemed realistic in mid-August, on the basis of the OPEC production agreements, but whether the market will continue to firm up in the fourth quarter is highly speculative. OPEC has a poor track record in matching its public statements with coordinated membership actions, so there is question and concern whether Iraq, Iran, Algeria and some of the others will comply with the restrictions or merely pay lip service to them.

Second Half Outlook: Stability Is the Keyword

	1st Qtr	2nd Qtr	3rd Qtr		4th Qtr		1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Full Year	Full Year	Full Year	% Chng	
	1986	1986	1986	1985	1986	1985	1987	1987	1987	1987	1985	1986	1987	86/85	87/86
Supply/Demand (million b/d)[a]															
Motor Gasoline (Total)	6.64	7.05	7.15	6.96	7.00	6.82	6.62	7.14	7.11	6.95	6.83	6.96	6.96	1.9	—
Leaded	2.15	2.27	1.97	2.41	1.80	2.31	1.62	1.66	1.56	1.45	2.43	2.05	1.57	(15.6)	(23.4)
Unleaded	4.49	4.78	5.18	4.55	5.20	4.51	5.00	5.48	5.54	5.50	4.41	4.91	5.38	11.3	9.6
Distillates	3.28	2.72	2.67	2.55	3.07	2.97	3.30	2.89	2.78	3.17	2.87	2.93	3.03	2.1	3.4
Residual	1.42	1.28	1.26	1.09	1.40	1.27	1.37	1.25	1.09	1.32	1.20	1.34	1.25	11.7	(6.7)
Other Products	4.71	4.83	5.20	4.94	5.12	4.96	4.90	4.79	5.20	5.12	4.83	4.96	5.00	2.7	(0.8)
Total U.S.	16.06	15.88	16.28	15.54	16.59	16.02	16.19	16.07	16.18	16.55	15.73	16.20	16.25	3.0	0.3
Prices ($ per gal.)[b]															
Motor Gasoline[c]	1.10	.93	.88	1.22	.89	1.20	.91	.97	1.03	1.03	1.20	.95	.99	(20.8)	4.2
No. 2 Diesel Oil (Retail)	1.04	.86	.81	1.13	.84	1.20	.92	.93	.97	1.00	1.15	.89	.95	(22.6)	6.7
No. 2 Heating Oil															
Wholesale	.61	.43	.41	.73	.44	.83	.49	.49	.52	.56	.77	.47	.51	(39.0)	8.5
Retail	.97	.74	.65	.96	.68	1.07	.77	.75	.78	.84	1.05	.76	.79	(27.6)	3.9
No. 6 Residual[d]	.47	.32	.32	.57	.34	.58	.37	.37	.41	.44	.61	.36	.39	(41.0)	8.3

(a) Supply/Demand is basically product supplied and includes net imports.
(b) Gasoline and No. 2 diesel include federal and state taxes; No. 2 heating oil and resid do not.
(c) Average for all grades.
(d) Average for all sulfurs; retail price.
Source: Energy Information Administration, Short-term Energy Outlook, August 1986.

Unattended could be a boon to small rural jobbers.

use of safety devices such as automatic fire suppression equipment, heat detection and alarm systems. Such equipment would cost retailers an estimated $7,000 to $10,000 per location.

Is unattended really the wave of the future? Bob Renkes, PEI administrative director, believes the amended codes will provide an economic boost for smaller jobbers.

"Unattended stations will help those jobbers contain labor costs," Renkes says. "Customer convenience will improve. And, many jobbers will be able to have their own credit card programs."

How Safe Is Self-service?

Self-serve gasoline dispensing is not as safe from fire and other customer-triggered accidents as many in the industry believe it to be, a dealer association exec charges.

Brian Ettesvold, executive director of the Minnesota Service Station Assn., has compiled survey data which he says demonstrates that self-service gasoline operations are more dangerous than full-service.

"It's obvious from our data that unattended self-serve outlets, open to the public, would magnify the safety problems revealed in our survey," Ettesvold says. "When an accident occurs, the presence of an alert attendant is frequently the difference between a minor incident and a possible disaster."

Ettesvold also claims that the MSSA survey shows that the low notification rate of station accidents to local fire departments (less than 10% of actual occurrences among the 205 stations responding) indicates that accurate data on the number of accidents in stations is simply not available. "We've checked every source imaginable—fire departments, insurance companies, government agencies, etc.—and got nothing," he says. "The vast majority of occurrences just go unreported."

Commenting on the survey results, Ettesvold says, "If no attendant is on duty, we could be exposing customers to a large number of life threatening situations, as well as pollution of sewers and water supplies. Extra precautions must be studied if we are going to consider unattended gasoline outlets open to the public."

MSSA mailed out a total of 490 questionnaires to all types of gasoline outlets in the state and received 205 usable responses, a response rate of about 42%. Respondents by type of outlet were:

Full-service only	28
Self-service only	105
Split Island Only (Full- and self-service)	72

Driveoffs With Hose in Tank

Type of Outlet	Occurrence Rate	Projected Statewide Hose Pulloffs Per Year
Full-service only	Once every 3 years	185
Self-service only	Once every 1¼ years	1,628
Split island (f-s)	Once every 3 years	431
Split island (s-s)	3.1 times per year	4,004
	Total	6,248

(Estimated U.S. annual hose pulloffs: 340,000)

Activated Emergency Shutoffs

Type of Outlet	Occurrence Rate	Projected State Total
Self-service only	5.8 times per year	10,730
Split island (s-s)	2 times per year	2,590
	Total	13,320

Reasons of Activation	Occurrences Per Year In 205 Outlets	Projected State Total
Hose pulloff	282	5,076
Vehicle hit pumps	68	1,224
Fire	20	360
Engine running	10	180
Smoking by customer	4	72

Total Accident Occurrence Per Year, Per 100 Outlets

Type of Outlet	Rate	Projected State Total
Full-service	.65 per year	460
Self-service	.85 per year	1,572
Split island	1 per year	1,295
	Total	3,327

Number of Fires Per Year, Per 200 Outlets

Type of Outlet	Number of Fires	Fire Department Notification Rate
Full-service	2	4%
Self-service	8	4%
Split island	9	15%
Total	19	
Total reported to fire dept.	1.75	

Lives Saved Per 100 Outlets Over Last 5 Years

Attempts	Successes	Losses
13	12	1